This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

9AtB
/θ

THE

RICHMOND AND LOUISVILLE

MEDICAL JOURNAL.

E. S. GAILLARD, M.D.,

EDITOR AND PROPRIETOR.

BOSTON MEDICAL
LIBRARY
ASSOCIATION

Vol. VII. and VIII.

LOUISVILLE, KY.

1868.

INDEX.

A—Vol. VII.

Aphasia, Bemiss, 12
Amblyopia and Amaurosis, Sichel, 30
Analysis of Various Articles, Holloway, 59
194, 309, 420, 535, 648,
Aphasia, Bemiss, 166
Aphasia, Bemiss, 259
Address before the Boyle county Med. Soc., Jackson, 266
Anthrax, Thornton, 507

Vol. VIII.

Abscess Mammary, Garrison, 16
Analysis of Various Articles, Holloway, 56
172, 256, 394, 526, 609,
Articulations of Lower Extremities, Hamilton, 113
Aneurism of the Aorta, Cordell, 496

B—Vol. VII.

Bemiss, S M., M D., Aphasia, 12
Bemiss, Dr S M., Aphasia, 166
Bemiss, Dr S M., Aphasia, 259
Bryant, Dr Geo Syng, Fungous Tumor, 275
Breckinridge, Dr S P., Locomotor Ataxia, 634

Vol. VIII.

Bloodletting, Chew, 1
Belladonna, Whitehead, 18
Baldwin, Dr W O., Address, 20
Bloodletting, Spillman, 480
Benson, Dr J W., Clinical Record, 529
Binder The, In Parturition, Nottingham, 563
Bryant, Dr G S., Speculum, 589
Barker, Dr P C., Action of Opium, 591
Bryant, Dr G S., Retractor, 607
" " " Clinical Record, 611

C—Vol. VII.

Carbolic Acid, Kempster, 52
Cook, Prof A B., Clinical Record, 65
Chaille, Dr Stanford E., Cerebral Circulation, 154
Cerebral Circulation, Chaille, 154
Chaille, Dr S E., Aphasia, 259

Chisolm, Dr J J., Myopia, 261
Calabar Bean in Tetanus, Greenleaf, 490
Cholera, Sporadic, Eve, 504
Cerebro-Spinal Disease, Jones, 601
Calculus, Roberts, 626

Vol. VIII.

Chew, Dr S C., Bloodletting, 1
Calabar Bean, Wilson, 147
Cupples, Dr George, Gunshot Wounds, 225
Confederate War Statistics, Jones, 341
Confederate War Statistics, Jones, 452
Cordell, Dr Eugene F.., Aneurism of the Aorta, 496
Conkwright, Dr A H., Bloodletting, 504
Chesney, Dr J P., Cholera, 587
Cholera, Chesney, 587

D.—Vol. VII.

Dickson, Prof S H., Monstrosities, 1
Dow, Dr T Chalmers, Lumbricoides, 171
Dougherty, Dr W H, Clinical Record, 317
Dunlap, Dr R W., Clinical Record, 425
Dow, Dr T Chalmers, Dislocation of Thumb, 511

Vol. VII.

Doughty, Prof Wm H., Hospital Gangrene, 139

E.—Vol. VII.

Embolism, Kirchgasen, 41
Eve, Prof Paul F., Clinical Record.
Eve, Prof Paul F., Sporadic Cholera, 504
Eberth, Dr C J., Blood Vessels, 646

F—Vol. VII.

Fœtus Retained, Tatum, 622
Fuller, Dr H W., Rheumatic Fever, 640

Vol. VIII.

Freer, Dr J W., Blood Corpuscles, 47
Femur, Dislocation of, Johnston, 135
Femur, Head of, Logan, 367
Fever, Intermittant, Willebrand, 401
French, J G., F R C S., Counter Irritation 597

G—Vol. VII.

Goodman, Dr J., Clinical Records, 198
Greenleaf, Dr Charles R., Tetanus, 490

Vol. VIII.

Garrison, Dr J B., Mammary Abscess, 16
Gangrene, Hospital, Doughty, 139
Gunshot Wounds, Cupples, 225
Goodwillie, Dr D H., Anæsthethics 599

H—Vol. VII.

Holloway, Prof J M., Analysis, 59
Holloway, Prof J M., Analysis, 194
Holloway, Prof J M., Analysis, 309
Holloway, Prof J M., Analysis, 429
Higginbottom, Dr John, Nitrate of Silver, 534
Holloway, Prof J M., Analysis, 535
Holloway, Prof J M., Analysis, 648

Vol. VIII.

Holloway, Prof J M., Analysis, 56
Hamilton, Prof J H., Articulation, 113
Holloway, Prof J M., Analysis, 172
Horner, Dr S H., Purulent Infection, 247
Holloway, Prof J M., Analysis, 256
Holloway, Prof J M., Analysis, 394
Holloway, Prof J M., Analysis, 526
Hendrick, Dr O., Clinical Records, 397
Holloway, Prof J M., Lithotomy and Lithotripsy, 577
Holloway, Prof J M., Analysis, 609

J—Vol. VII.

Jackson, Dr John D., Varicella and Variola, 20
Joynes, Prof L S., Medicinal Pepsine, 249
Jackson, Dr John D., Address, 266
Jordan, Dr Furneux, Surgical Diseases, 512
Jones, Dr Joseph, Cerebro-Spinal Disease, 601

Vol. VIII.

Jones, Dr Joseph, Rickets and Mollities Ossium, 52
Johnston, Prof Christopher, Dislocation of Femur, 135
Jenkins, Dr T E., Pharmacy Report, 238
Jackson, Dr John D., Clinical Record, 160
Jones, Prof Joseph, Confederate War Statistics, 341
Jenkins, Dr T E., Pharmacy, 386
Jones, Prof Joseph, Confederate War Statistics, 452
Jenkins, Dr T E., Pharmacy, 511

K—Vol. VII.

Kirchgasen, Dr C., Embolism, 41
Kempster, Dr W., Carbolic Acid, 52
Kellar, Dr M B., Umbilical Cord, 248
Kelly, Dr B B., Syphilitic Disease, 359

L—Vol. VII.

Lumbricoides, Dow, 171
Lincoln, Dr N S., Lithotomy, 423

Vol. VIII.

Logan, Prof Samuel, Head of Femur, 367
Lithotomy and Lithotripsy, Holloway, 577

M—Vol. VII.

Monstrosities, Dickson, 1
Myopia, Chisholm, 261
Meadows, Dr Alfred, Medicated Pessaries, 521
Maudsley, Dr Henry, Opium in Insanity, 527
Maclean, Dr Donald, Clinic, 545

Vol. VIII.

Maclean, Dr Donald, Encephaloid Tumor, 13
Magruder, Dr A F., Clinical Record, 174
Meuriot, M., Belladonna, 251
Morton, Dr W D., Clinical Record, 401

N—Vol. VIII.

Neftel, Dr W., Tumors, 521
Nottingham, Dr C B., The Binder in Parturition, 562

O—Vol. VII.

Ovariotomy, Thompson, 267
Oppolzer, Prof., Heart Disease, 628
Octerlony, J. A., M D, Measles, 502

P—Vol. VII.

Parturition, Thomas, 137
Pepsine, Medicinal, Joynes, 249
Percy, Dr S R., Atropia, 378

R—Vol. VII.

Roberts, Dr John B., Calculus, 626

S—Vol. VII.

Sichel, Prof T., Amblyopia and Amaurosis, 30
Sims, Dr J Marion, Sterility, 288
Storer, Dr H R., Speculum, 305

Vol. VIII.

Sayre, Dr L A., Clinic, 62
Syphilitic Disease, Kelly, 359
Spilman, C H, Dr., Bloodletting, 480
Speculum, Improved Uterine, Bryant, 589

T—Vol. VII.

Thomas, Dr T Gaillard, Parturition, 137
Thompson, Dr J H., Ovariotomy, 267
Tumour, Fungous, Bryant, 275
Thornton, Dr S C., Anthrax, 507
Thumb, Dislocation of, Dow, 511
Tatum, Dr R H., Retained Fœtus, 622

Vol. VIII.

Tumour Encephaloid, Maclean, 13
Trautvetter Von Dr., Injection of Liquids, 249

V—Vol. VII.

Varicella and Variola, Jackson, 20

Vol. VIII.

Van Buren, Prof W H, Spermatorrhœa, etc, 371

W—Vol VII.

Whitehead, Dr P E., Belladonna, 18
Walker, Dr B R., Opium Poisoning, 70

Vol. VIII.

Wilson, Dr T C., Calabar Bean, 147
Wanzer, Hiram, M D., Clinical Record, 266
Willebrand, F de, Intermittent Fever, 491

Y—Vol. VII.

Yandell, Dr D W., Clinical Record, 651

Vol. VIII.

Yandell, L P Jr., M D., Bromide of Potassium, 602

Eclectic—Vol. VII.

Bartholow, R., M D., Tubercle, 173
Cotting, Dr B E., Throat and Air Passages, 178
McCloud, Dr G H B., Venereal Disease, 185
Fumouze, Armand, M D., Cantharides, 192
Treatment of Sterility, Sims, 288
Speculum, Modification of Cusco's, Storer, 305
Insalubrity of Cast Iron Stoves, 307
Atropia, Dr S R Percy, 378
Hypodermic Method of Injection, 414
Rheumatism, 418
Surgical Diseases, Jordan, 512
Medicated Pessaries, Meadows, 521
Opium in Insanity, Maudsley, 527
Nitrate of Silver, Higginbottom, 534
Heart Diseases, Oppolzer, 628
Locomotar Ataxia, Breckinridge, 634
Rheumatic Fever, Fuller, 641
Blood Vessels, Eberth, 647

Vol. VIII.

Address of Dr W O Baldwin, President Am. Med. Ass. 20
Human Blood Corpuscles, by J W Freer, M D., 47
Rickets and Mollities Ossium, Dr Joseph Jones, 52
Code of Medical Ethics, 150. Erysipelatous Inflamma. 166
Treatment of Scarlet Fever, 167
Carbolic Acid in Skin Diseases, 171
Report of the Committee on Pharmacy, Jenkins, 238
Purulent Infection Cured by Sulphate of Quinine in large Doses, Hornor, 246

Non-Ligation of the Umbilical Cord, Kellar, 24
Injection of Liquids, Von Trautvetter, 249
Action of Belladonna, Meuriot, 251
Spermatorrhœa and Impotency, Van Buren, 371
Report of the Committee of Pharmacy, Jenkins, 367
Case of Measles, Octerlony, J A., M D., 502
Bloodletting, Conkwright, 504. Gonorrhœa, Hill, 508
Pharmacy, Jenkins, 511. Tumors, Neftel, 521
Action of Opium on the Uterus, Barker, 591
The Philosophy of Counter-Irritants as Applied in Practice, French, 597. Anæsthetics, Goodwillie, 599
Bromide of Potassium, Yandell, 602. Chloral, 606
Retractor, Bryant, 607

CLINICAL RECORDS—VOL. VII.

Joined Twins; The Obstetric and Surgical Management. By A B Cook. M D., 65
A New Method of Conducting the After Treatment in the Operation for Vesico-Vaginal Fistula. By J Goodman, 198
The Sutures for Vesico-Vaginal Fistula Inserted by means of a Canula Needle; with Report of a Case. By Prof Paul F Eve, 315
Cancer of the Testicle. By W H Doughty, M D., 317
Mulberry Calculus of Unusual size. Lincoln, 423
Excessive Secretion of Liquor Amnii. Dunlap, 425
Foreign Body in the Æsophagus. Maclean, 545
Carbolic Acid in Surgical Cases. Yandell, 651

VOL. VIII.

Homeopathic Midwifery. L A Sayre, M D., 62
Opium Poisoning. E R Walker, M D., 70
Epilepsy Treated with the Trephine. Magruder, 174
Case of Tetanus. Jackson, 160
Amputation of Shoulder Joint. Wanzer, 266
Hypodermic Injections of Morphia in Obstetric Practice. Hendric, 397
Bromide of Potassium in Inflammatory Diseases of the Female Sexual Organs. By W D Morton, M D., Shelby county, Ky., 401. Ovariotomy. Benson, 529
Constrictions of the Os and Canal of the Cervix Uteri, etc. Bryant, 611

ORIGINAL CORRESPONDENCE—VOL. VII.

Paris, 91. Berlin, 205. New York, 215. Paris, 322
Williamsboro', N C., 220. Paris, 320. Vicksburg, Miss., 327
Union City, Tenn., 328. Paris, 431. Springfield, Tenn., 448
Paris, 554, Montgomery, Ala., 566. Paris, 665
New York 675. Welborn, Fla., 678

VOL. VIII.

Paris, 72. New York, 77. Paris 180. New York, 186

Louisville, 189. Paris, 270. Milton, Ky., 276
Elizabethtown, Ky., 277. Augusta, Ky., 278. Paris, 405
Vienna, 535. Calhoun, Ky., 544. Danville, Ky., 542
Paris, 622. Berlin, 626

REVIEWS—VOL. VII.

The Principles and Practice of Obstetrics. By G S Bedford, *M* D., 103
Circular of the Medical Department of the University of Louisville, 223
Bleeding and Change of Type in Disease. By W O Markham, M D., F R C P., 329
On the Signs and Diseases of Pregnancy. By Thomas Hawkes Tanner, M D., F L S., 335
Prehistoric Ages of Scandinavia and the Lacustrine Dwellers in Switzerland. By T S Bell, M D., 444
Percussion and Auscultation. By Austin Flint, Jr., 461
Pronouncing Medical Lexicon. By C H Cleveland, M D., 462
Physician's Dose and Symptom Book. By J A Wythes, M D., 462
Conspectous of the Medical Sciences. By Henry Hartshorne, 462
Medical Dictionary. By J Thomas, M D., 462
Essays and Lectures. By Richard McSherry, M D., 570
Constipated Bowels. By S B Birch, M D., 572
Medical Formulary. By B B Ellis, M D., 571
Report of Seven Operations for Stone. By Prof P F Eve, 575
Intra-Mural Fibrous Tumor. By Prof W H Byford, 575
A Glance at Medical History. By Dr R A Wise, 576
The Dynamics, Principles and Philosophy of Organic Life. By Z C McElroy, 576
Physical Survey of Virginia. By *M* F Maury, L S D., 576
Pathalogical Phenomena Generalized. By H Bachus, 577
Operation for Vesico-Vaginal Fistule. By Dr Nathan Bozeman, 577
Diseases of Children. By Thomas Hillier, M D., 679
Diseases of Women. By T G Thomas, M D., 683
Manual of Dissections of the Human Body. By Luther Holden, F R C S., 685

VOL. VIII.

Outline of Physiology. By J. Marshall, F R S., 80
The Physiology of Man. By Austin Flint, Jr., M D 80
A Treatise on Human Physiology. By J C Dalton, M D 80
A Treatise on the Functions of Digestion. By F W Pavy, M D., F R S., 190
Practical Observations on the Etiology, Pathology, Diagnosis and Treatment of Anal Fissure. By Wm Bodenhamer, A M, M D., 192
Proceedings of the State Medical Society of Kentucky, 194

Sanitary Memoirs of the War of the Rebellion, etc. By Austin Flint, Jr., M D 280
Practical Manual on the Treatment of Club Foot. By Prof L A Sayre, 309
Neuroses of the Skin. By H T Damon, A M, M D, 409
Nomenclature of Diseases—Committee of Royal College of Physicians of London, 412
Transactions of Medical Association of Alabama, 413
New Orleans Infirmary and the Med Asso of N Orleans, 414
Structural Lesions of the Skin. By H F Damon, AM, MD, 546
Florida and the South. By D G Brinton, A M, M D, 550
Œsophagotomy for the Removal of Foreign Bodies. By D W Cheever, M D, 550
Excisions of the Head of Femur for Gunshot Injuries, 550
The Hip. By Henry J Bigelow, M D, 550
The Membrana Tympani. By Dr A Polittzer, 550
A Text Book of Practical Medicine, etc. By F Von Niemeyer, 630
Myxoma. By A D Sinclair, M D, 642
Intermarriage of Relations. By S M Hobbs, M D, 642
Report on the Training of Feeble Minded Children—Committee, 463
Nocturnal Enuresis and Incontinency of Urine, 644
External Perineal Urethrotomy. By Dr J W S Gouley, 642
Practical Chemistry for Students. By W Odling, M D, 645

MISCELLANEOUS—VOL. VII.

Life of Dr Valentine Mott, 110. Occular Illusion, 113. Minute Investigation of the Kidneys, 114. A Sure Sign of Death, 114. Treatmant of Bilious Remittant Fever 115. Syphilis Contracted from Cigar Stumps, 115. Evidence of Death, 115. New mode of compression of Arteries, 116. Dr A Jacobi, 116. M Groussiu, 117. Prof J R Wood, 117. Surgeons of Edinburgh, 117. Ether, 117. Remedy for Gunshot Injuries, 118. A French Nobleman, 118. Thymic Acid, 118. Milk in the breast of a male Infant, 118. Bismuth in Diarrhœa, 119. Life of Dr Paul F Eve, 228. Lactation by a Woman 60 years old, 230. Military Supervision of Medical Science, 231. Toland Medical College, 231. Prof James R Wood, 231. Dr Charles L Ives, 231. Life of Dr Charles Caldwell, 339. Change of Type in Disease, 346. A new English Invention, 350. Abortion as a cause of Insanity, 350. Local treatment of Soft Chancre, 351. Prolapsus Ani, 351. Dr B P Stauts, 351. Veratrum Viride, 351. Death from Chloroform, 352. Removal of Freckles, 352. Life of Prof. Charles A Pope, 463. Use of Belladonna, 464. Treatment of Corns, 465. Dr George Harley, 466. Dr Gruber, 466. Electricity in poisoning by Opium, 467. Substitute for Chlorodyne, 467. Analysis of the Life of Dr W O Baldwin,

579. Kentucky State Medical Society, 581. Tennessee State Medical Society, 585. Mental and Manual Labor, 587. Consumption, 587. Ricord, 588. New York Medical Gazette, 588. Acne, 588. Antiseptic Properties of the Sulphites, 588. Falling of the Hair, 589. Second attack of Small Pox, 589. To make Quinine Pills, 589. Treatment of Typhoid Fever, 589. Treatment of Hæmorrhoids, 590. Physiological action of Belladonna, 490. Life of Dr. Z Pitcher, 685. The American Medical Association—Proceedings, 689.

Vol. VIII.

Analysis of the Life of Dr Nathaniel Chapman, 91. Committee Report on Medical Education, 95. Kentucky School of Medicine and Remuneration Fees, 97. University of Louisville, 98. Boyle county Medical Society, 100. A Sensitive Author, 100. Nelaton, 100. Analysis of the Life of Dr Wm Gibson, 202. The Oils we Burn, 207. The Medical Society of Washington, D C., 208. Southern Historical Society, 209. Analysis of the Life of Franklin Bache, 310. How to restrain Hæmorrhage in Amputation of the Breast, 313. Salivary Calculus from Wharton's Duct, 314. A Specimen of Western Babies, 314. Reproduction of the Brain, 315. Meeting and Organization of Medical Journalists, 315. Opinions of the Press, 319. Journalistic Discourtesy, 320 Reviews, 320. Unmannerly, 321. Criticism, 321. The Nashville Journal, 321. Unbecoming Medical Journalism, 321. Wounds of Joints, 322. Pulvis Ipiecacuhana et Opii, 323. Chloroform Inhalation, 323. Gonorrhœal Rheumatism, 323. Analysis of the Life of Velpeau, 415. Ovariotomy, 426. Oil of Turpentine, 427. Hypodermic Injection of Ergot in the treatment of Aneurism, 428. Bromide of Potassium for the Sleeplessness of Infants, 429. Ether in Phthisis. 430. The Cure of Acute Orchitis in Twenty-four hours, 431. Transfusion of Blood, 431. A powerful Hypnotic, 432. Extra Uterine Pregnancy, 432. Life of Dr Daniel Drake, 551. Glycerine Solution, 555. Dr W Marshall, 555. Dr F B Greenough, 555. Bromide of Potassium in Dentition, 556. Pneumonia, 556. Analysis of the Life Dr. John Collins Warren, 646. Dualine. 650. The Case of Surgeon Green, 652. Alcohol, 653. Lithexer, 653. Hygiene of Rice Culture, 654. Vinegar upon the Skin, 654. A Useful Hint, 654. Postural Treatment of Prolapsed Funis, 660. An Aged Primapara, 660. Early Pregnancy, 661. Civiale's Collection of Calculi, 661. A Physiological Curiosity, 661. Dr Echeveria, 661. Longevity, 662. Animal Vaccination, 662.

Medical News—Vol VII.

Professors Gross and Pancoast, 119. English Troops, 119. Nelaton, 119. Dr. Austin Flint, Jr, 120. A Woman in France, 120. Dr D C McVail, 120. Mr Geo Tieman, 120.

The Laryngoscope, 120. Von Graefe, 120. Dr J Marion Sims, 120. Ambrose Pare. 120. The Dominion Medical Journal, 231. The College of Physicians and Surgeons, 232. Louisville Obstetrical Society, 232. Louisville Medico Chirurgical Society, 232. New Orleans School of Medicine, 233. Kentucky State Medical Society, 233. American Medical Association, 353. University of Virginia, 353. The Kentucky State Medical Society, 352, Delegates of the American Medical Association, 352. American Medical Association, 467, Graduates, 468. Medical College of Memphis, 468. Medical College of Virginia, 468. Kentucky State Medical Society, 468. Foreign Correspondence, 468. Alabama Medical Association, 469. Medical College of Virginia, 469. Louisville Medical College, 469. Kentucky School of Medicine, 470. The Archives of Ophthalmology and Otology, 470. Prof F T Miles, 470. The Clinico-Pathological Reporter, 470. Dr T E Jenkins, 471. The St Louis Medical Reporter, 471. Prof Joseph Jones, 471. Medical Department of the University of Louisville, 471. Recruits of the Medical Army, 591. India Rubber Sponge, 591. Prof. Robley Dunglison, 591. Cheap Medical Schools, 707.

Vol. VIII.

University of Maryland, 101. The Journal of the Gynæcological Society, Boston, 101. Revista Medico Quirurgica y Dentistica, 101. A Surgical Prize, 102. Prof P F Eve, 102. Medical Instruction, 102. Medico-Chirurgical Society of Louisville, 102. Cumberland University, 102. Prof Von Bruns, 102. Charles U. Shepard, Jr M.D., 103. Medical Department of Willamette University, Oregon, 103. Liberal Donation, 103. Medical College of Virginia, 213. Medical Department of the University of Louisville, 214. The St. Louis Medical Archives, 214. Dr J M Toner, 214. The Nashville Journal, 214. Surgeon General U. S. A., 324. New Medical School, 324. Notice, 324. Dr Brown Sequard, 325. Prof. Brunetti, 325. Dr John Ashhurst, 325. Nashville Journal, 433. A Difficult Time with the Savans, 435. Trousseau, 435. A New Styptic Collodion, 435. Dr Ravoth, 435. Cure for Toothache, 436. Prof Dareste, 436. Extraordinary Operation, 436. Dr M H Henry, 436. Dead Bodies, 436. Calabar Bean, 436. Prof Purkinjie, 437. Claude Bernard, 437. Dr. Louis Elsburg, 437. Medical Colleges of this City, 558. University of Iowa, 558. Prof J McNaughton, 558. Dr Lepotai, 558 Mr Frederick Sterns, 558. Sambucus Canadensis, 558. Carbolic Acid, 558. British Medical Association, 558. Society for the Protection of Children, 559. Dr Wm Goodell, 559. The Paris Schools, 559. Ages of Great Physicians, 559. Rev W H Milburn, 559. Dr T S Bell, 559. Ergot, 560. Bichloride of Mercury, 560. Calabar Bean, 560.

Cheap School Convention, 560 The Artificial Leech, 663. Arsenic, 663. Muriate of Ammonia, 663, Calabar Bean, 663. Amblyopia, 664. Preservation of Dead Bodies, 664 A Valuable Suggestion, 664. Ventilate Sewers, 664. Heat of the Moon, 664. Louis Napoleon, 664. Colotomy, 664. Contagion of Consumption, 664. Deaths from Chloroform, 664. Novel Operation, 664. A Welcome Work, 665. Hydrate of Chloral 665. The Oregon Medical and Surgical Reporter, 665. Difficulty of Obtaining Subjects in London, 665.

EDITORIAL—EDITORIAL NOTICES—VOL. VII.

The New Year, 121
The Medical College of South Carolina, 135
Gallery of Distinguished Physicians, 135
Correction, 135
Louisville Medico-Chirurgical Society, 136
Acknowledgment, 136
Steam Atomizer, 136
Prof A E Petticolas, 136
Books and Journals Received, 135
Dr A E Petticolas. 233
The American Journal of Obstetrics, 237
The Board of Health, 243
The New York Medical Journal, 246
Aphasia, 247
The Physician's Pocket Record, 247
Errata, 247
Medical College of Virginia, 247
A Proposition to Medical Societies, 354
Advertisements of Physicians, 357
Chemical Manual, 357
Louisville Board of Health, 358
Review of Tanner's Work, 358
Valedictory Address of Dr M H Houston, 359
Kentucky School of Medicine, 359
Medical Department of the University of Louisville, 359
Correction—Dr Eve, 359
Errata, 359
Notices, 359
Letters from Drs Baldwin and Nott, 472
Books Sent for Review, 487
Notice, 488-600
Gynæcological Society of Boston, 488
Deans of Medical Colleges, 488
Books and Journals Received, 488-600-712
American Medical Association, 492
Craig Microscope, 594
Dr W Read. 595
Consulting with a Homœopath, 5

Clifton Hall, 597
The Resources of this Journal, 598
Acknowledgment, 598
Tinted Paper, 598
Correction, 599
Death of Dr William Hays, 599
The American Medical Association, 709
The Western Journal of Medicine, 709
Low Fee School Convention, 711

Vol. VIII.

Medical Societies, 103
Drs Bell and Breckinridge, 109
Resignation, 110
Mr. Holloway, 110
Advertisement, 110
Important Notice, 111
Dr S H Dickson, 111
Proof Reading in April, 111
Cards of Specialist, 111
Craig Microscope, 111
The Nashville University. 111
Messrs Grimault & Co, 112
Mrs Milligan, 112
Substitute for Quinine, 112
Messrs Darby & Co, 112
Books and Journals Received, 112-224-237-446-562
Now and Then, 215
The Body of the Cheap School Convention, 218
The Amende 224
Action of some Louisville Doctors, 325
Brevities, 328
Obituaries, 336
Brevities, 438
To the Friends and Patrons of this Journal, 561
American Physicians, 665

With the Retractors matters are much more simple: the head, let us suppose, is retained on the floor of the perineum; the resistances are too great or the expulsive force is insufficient. The accoucheur waits the usual time, an hour, an hour and a half, &c. He arrives at the conviction that the application of the forceps is necessary. Silently he ~~sets out~~ makes ready. No apartment, no change in the position of the woman are necessary. ~~To the~~ introduction of the blades, for which it is not indispensable to know the exact position of the foetal head, is made with great ease, the articulation equally so. ~~[illegible]~~ To do this, it is not necessary to remove the bedclothes. The slight traction with one hand, or one or two fingers of the hand, as already said, suffices to make the head descend, and if before the head is born the operator wishes to disarticulate the blades he can do so without the least trouble, for it is necessary only to raise a little hinge adapted to the handle of the instrument.

The retractors can, moreover, be applied equally well in women confined on their left side, as in England, ~~traction [illegible]~~ (continuous or [illegible]) traction while the head is [illegible]
[illegible]

Finally, let me . . repeat the advantages of an instrument light & small, scarcely weighing 500 grammes, hinged so that it can be doubled up ~~and put~~ [illegible] in a little leather bag and easily put in the pocket. This is an advantage not to be lightly regarded by the practitioner.

Valentine Mott.

[illegible]

BOSTON MEDICAL LIBRARY

THE RICHMOND AND LOUISVILLE

MEDICAL JOURNAL.

VOL. VII. JANUARY, 1869. No. 1.

ORIGINAL COMMUNICATIONS.

"Qui Docet Discit."

ART. I.—MONSTROSITIES. By SAMUEL HENRY DICKSON, M.D., L.L.D., Professor of the Theory and Practice of Medicine in the Jefferson Medical College, Philadelphia, Pa.

In the July number of the "Cincinnati Medical Repertory," a description is given of "a female infant having four almost perfect legs," the same, doubtless, with the child described in the July number of the Richmond and Louisville Medical Journal, by Professors J. Jones and Paul F. Eve, of Nashville. There is, however, an obvious difference in their appreciation of the strange structure. Dr. Moores, in the first mentioned paper, evidently represents the baby as a unit, with supernumerary legs and duplicate perineal apparatus. Thus he writes: "The question naturally comes up, where is the anus and the vulva? The answer involves a description of a most wonderful freak of nature. Not between the abnormal legs, *as would be presumed*, but on each side of them."

The Nashville professors take a different view of the formation, and to my apprehension, clearly the correct one; being "led to the belief that the lower portion of the spinal column is divided or cleft, and that there are two pelvic arches, that the pelvic organs are double—two uteri as well as two recti."

Of course, with two pelves, each having attached to it a pair of legs, it is to be expected that we shall find a vulva and anus between the legs of each distinct pair; and such is the fact. Above the umbilicus the girl is single; below the umbilicus double. If the old maxim be accepted "*propter uterum solum mulier est quod est*", we must, indeed, consider that there are *two girls*.

Monstrosities illustrate each other. I shall by and-bye give the details of an instance still living, in which the duplication exists above as well as below; the union or interfusion as far as the osseous structure is concerned, being very closely analogous, but the soft parts distributed otherwise. Several examples are on record of union more or less intimate, more or less extensive, but only by soft parts, as of the buttocks, shoulders, or as in the Siamese Twins, by a peculiar interposed ligamentous substance.

The interest which these subjects excite, for they are always interesting, is of a character greatly varied and diverse. On the one hand it attaches to it their embryological, histological and anatomical details. On the other, a still more curious and profound interest belongs to them, in their biological, social and moral relations, which indeed, have not hitherto received the attention they certainly deserve.

Let me explain. A child is born with supernumerary fingers or toes; a surplus arm or leg; or there is deficiency in this respect, an arm rounded at the wrist, an amputated limb; abortive fingers, as I have seen, projecting from the top of the shoulder. The Chinese Aki, whose history Livingston and J. K. Mitchell have given us, had a miniature little brother growing out at his epigastrium, whose small body he had to carry and nurse all his life. Such cases may be simple, easily explained, readily arranged, or complicated almost unintelligibly.

Many years ago while traveling in the interior of Georgia, my carriage was stopped in the road by a man, who invited me to alight and visit his wagon, where I would see a strange sight, and might bestow much needed charity. I found there, sitting on the driver's seat and holding the reins, a person of good aspect, of average size of body and head and upper limbs, yet a poor cripple of singular combination of defect and deformity. Word painting is vastly inferior in conveying ideas of outline and shape to sketching, and indeed, is rarely successful. I will attempt, however, to give a description of what I saw and noted at the time.

Cornelius Allman is a native of Rowan county, North Carolina, æt. (then) 22 years; athletic as to his trunk and well developed in chest and shoulders; his hight, as he sat, was that of an ordinary adult, his countenance open, frank and intelligent.

His right hand, which he first showed me, is divided through the palm to the wrist, and consists of but two members, a finger and thumb, widely separated and forming a curve by their inner line of junction when opened, both broad, flat and misshapen, movable at the joints and capable of grasping firmly, as when he held the reins or whip in driving his team. Perhaps it would be better to say that the hand, the palm, was wanting—the finger and thumb being planted directly upon the wrist, which seemed normal.

The left hand had three members; two fingers alike and parallel, and a third finger or quasi thumb, not exactly parallel but not widely set off; all separate to the wrist; the thumb was broader and ill-shaped. He desired me to observe that his left hand was not "forked" as the right was. Both were serviceable, and the member had the usual number of phalanges, and the nails were as usual.

The right thigh terminated abruptly, as if amputated and was shortened, as compared with the left. At the extremity it was broad and flattened, the outer condyle being enlarged and rounded; at the inner condyle there was an elongation or narrow projection carried forward or downward about an inch.

The left limb presented an extraordinary condition. The thigh was of natural appearance and proportion down to the knee, which was irregular and unsymmetrical in outline and shape. Appended to it hung dangling a leg and foot, which for length and size, might have belonged to a boy of eight or ten years of age; the leg dwindled rapidly from its junction at the knee, and was turned directly backwards, so that the toe of the little foot, which was neatly shod, was under the thigh, and the foot swung parallel with it. The shin was behind and the calf in front, or what one might call the calf of this pendulous, flabby, useless member. Projecting downwards and separating from this quasi calf just below the knee, was a truncated or amputated fibula or something that might be a fibula covered with integument and left by the rapidly decreasing bulk of the little leg, with whose direction it was parallel. Its distinct projection was perhaps an inch and a half or two inches in length and bluntly rounded off.

We cannot express the pity we feel for such unfortunates as are born thus mutilated and disabled and burdened for life. But the terrible evils which they are doomed to bear, however full of annoyance and discomfort, are, after all, exclusively or almost exclusively physical in character, material.

Contrast them with the unimaginable horrors which overshadow the existence of the second class of miserables of whom I have spoken. Contrast their sufferings, however great, with the reasonable anticipations of the future of the Tennessee infant, recently born, if it should unhappily survive and pass through childhood, adolescence, womanhood. Compare them even with the deplorable and most repulsive history of the past and present of the notorious Siamese Twins, whose prolonged life of public exhibition, has been a perpetual stain upon our modern mongrel civilization and pretentious refinement; whose double marriage, legally contracted, was an unheard of outrage upon common decency, *contra bonos mores*, and a standing affront to the respect for woman, without which, the very frame-work of society must fall to pieces and utterly perish. Let fancy loose one moment to form probable pictures of the inner life of these two human wretches, who chose to endure their hideous chain for the sake of lucre, and who have become rich, as it is said, by the exhibition of their disgraceful, because voluntary connection. Their sequestered individuality, never unrestrained; their thoughts perpetually liable to interuption; incessant crossing of volition; compromise of purpose and confusion of passion, feeling and sentiment. Dante has conceived no mode of torture in his Inferno worse than all this. Their neighbors say they quarrel vehemently, have been known to pass weeks without speaking to each other and disagree very often about the money affairs, in which they are supremely absorbed.

The newspapers have a paragraph to the effect that they are about to take a voyage to Europe to be cut asunder—at last. It ought to have been done long since, when they were born, when they left the breast, when they grew up to be boys. I saw them when they were first shown in this country and then protested against their continued union, already beginning to be shameful. A printed document was handed to me in reply, purporting to contain "opinions" from Sir Astley Cooper and other surgeons, that the attempt would be dangerous and might be fatal. I said then and I say now, that it ought to have been done at all risks—with a hatchet, if necessary. I did not then, nor do I now believe that it would be as serious an operation as the amputation of an arm or a leg: infinitely less so than lithotomy or ovariotomy. It must be effected now—or at that terrible moment when the death of the one shall appal the shrinking survivor; and his fear, or perhaps some form of blood poisoning, shall vastly increase the peril.

And again: Contrast all these—the mere plus or minus monstrosities, with their heaviest load of material calamities with the present and future of "the Carolina twins," as they are called; two young women, inextricably united, like the Hungarian sisters and the Biddenden Maids of Kent. I am not aware that our journals have noticed this very remarkable pair, except in the slightest manner; yet, I am satisfied that the records of monstrosities contain nowhere, either in ancient or modern times, a case so full of curious, profound and painful interest. I first saw these amiable and unfortunate girls in Charleston, S. C., and find in my note book the following brief statement concerning them: "I went to-day, November, 1853, to the S. C. Hall, by invitation, to see something strange. Two little black children, now about two years old and in fine plump health, are united together at the sacrum, which is very thick and broad. Just above it the spinal column divides and continues apart, each portion belonging to a distinct body. There is but one anus and one vulva; there are two meatus urinarii. The rectum, I suppose, is common to the two children connected with two colons, etc. The vagina must divide and become double, as there are, doubtless, two uteri (occupying the two pelves) and almost certainly two urinary bladders."

In May, 1866, these twins came to Philadelphia. I visited them and sought and obtained, with no little difficulty, opportunity and permission to repeat the examination made in their infancy. I was accompanied by my friend and colleague, Dr. Ellerslie Wallace, Professor of Obstetrics in Jefferson Medical College. The twins are named Christina and Milly; and are of unmixed African blood, but evidently from a tribe of the higher and better order of Africans. I take the occasion to remark that there can be no error more absurd than to confound, as is universally done here at the North, the several nations or races of negroes marked with differences as prominent and indicative of superiority and inferiority among themselves, as those which place the Norman, Scotchman or Frenchman above the Finn or the Esquimaux, the Basque or the Highland or Irish Kelt.

These girls are modest, intelligent, well-mannered and gentle. They differ in height, C. being nearly an inch taller than M., and even more, proportionally in strength. C. can carry M. lightly and easily, dancing gracefully enough under her weight; but M., on the other hand, can scarcely lift C. from the floor. C. sings with a loud, clear, pleasant voice. M. is somewhat feeble about the chest, subject to cold and sore throat.

There is little to add to what is said above of the mode of union between them. It is at the lower end of the spine—the sacrum alone being implicated. Prof. Wallace, indeed, thinks that there is a portion of the sacrum itself at its broad base, free or double. The connection of the soft parts, is, as in the Hungarian sisters, referred to by my Nashville friends, very extensive at the back and the buttock. As is already said, there exist one anus and one vulva, with two vaginæ and two meatus urinarïi. As they lie on Milly's right side, the anal opening is below. At a corresponding point above and beyond the vulva, there is a small opening, a *cul de sac*, admitting a blunt probe to the depth of three-fourths of an inch; perhaps the trace of an abortive anus. The clitoris is double or bifid and the openings of the two vaginæ, slightly projecting in, the vulva lie side by side. They urinate and defecate together with common impulse; it is not yet certain, they are so young, whether they menstruate simultaneously. There is a vague community of sensation between them in some points. A touch below the spinal junction is felt by both; not so when made on the trunks, heads and arms. They once had intermittent fever; their chills and the subsequent stages of the paroxysms being entirely synchronous. One of them had suffered from severe sore throat—the physician attending called it diphtheria—the other remaining well.

They sit, stand, walk and lie together with their arms, the left of Milly and the right of Christina, constantly about each other, though they can and do bring them forward and use them separately and individually. Their thoraxes are somewhat twisted and unsymmetrical, rendered so necessarily by the perpetual pressure and leaning of one against the other. Milly's left chest is a good deal contracted, with a short sternum and projecting angular ribs and cartilages; there would seem to be scarcely sufficient room for the heart, which is pushed over below the mediastinum, striking the chest wall with defective force of impulse. Christina is better and more fully developed. I remember very well having felt the pulse in the two, to ascertain whether the cardiac action was synchronous; but regret to say that I find no record of the result, and only wonder how I could have omitted it. I think the two beats were not in accordance.

It may, perhaps, be worthy of notice that all these examples of indissoluble union—osseous connection—occur in *female twins*, as in the Tennessean Josephine, the Sardinian girls, the Hungarian Sisters, and the Kentish Maidens of Biddenden, the earliest, I think on distinct record. "In the year 1100, at Biddenden in Kent, were born Elizabeth and Mary Chalkhurst, joined together by the hips and shoulders, and who lived in that state thirty-four years, at the expiration of which time one of them was taken ill, and after a short period died; the surviving one was advised to be separated from the corpse, which she obstinately refused, saying these words: 'As we came together, we will also go together;' and about six hours after her sister's decease, she was taken ill and died also."

Thus was inflicted by nature or Providence the horrible torture which has rendered the name of Mezentius ever infamous for his cruelty, in binding together the living with the dead as punishment to his enemies.

Over the happiest human life hangs always the certainty of approaching catastrophe, the sword of Damocles suspended by a hair and sure to fall. This ever-present liability is doubled in these unhappy cases and aggravated by all possible entanglements of sympathy, anxiety, fear and love. Who can conceive of the mental condition of the Kentish maidens during their thirty-four years of life; of the Hungarian sisters, surviving twenty-two years; of the Carolina twins, now passing through their strange and æsthetically incomprehensible pilgrimage? Suppose any incompatibility or even inequality of temper, any marked discrepancy as to the ordinary vital functions, the generation or tolerance of heat or cold, the readiness to incur fatigue, weariness, restlessness and the like; it is clear that the susceptibility to annoyance of all kinds and great variety of suffering is doubled and more than doubled; while the capacity for any species of enjoyment is certainly not in any manner or degree increased, but rather to all appearance narrowly restricted and greatly diminished.

If these separate individualities, these distinct souls "cribbed, cabined and confined" by the mysterious and burdensome connection, not with one only, but two frail bodies, if they are united in spirit and closely sympathetic; such an existence might be tolerable. But how seldom are we—single, mentally, and corporally—fully at one with ourselves! How seldom does peace reign within our mortal microcosm! How then with these unhappy dualities, these double-bodied minds? Are they frank with each other, or have they concealment? Do they indulge in separate sentiment, thought, emotion, passion? Can either commit crime and suffer remorse without the knowledge or partnership of the other? Can they keep their stock of pleasures or of pain clearly distinct, or must they share and partake—per force? Who can tell?

Habit and necessity, "the inexorable must," it is always taken for granted, will reconcile all human beings to a condition which they cannot change. This is true, however, only in an imperfect degree and will be greatly modified by the original temper and disposition of the victim. We are told of the good humor and cheerfulness of Walter Scott under a defect which imbittered the life of Byron. Some wild animals are untamable, and fret themselves to death under restraint, while others become gentle and seem at ease. It is certain I think that no male twins would have reached maturity, in the intimate and unyielding bondage which has been borne for many tedious years, by at least three pairs of females. The more pliable feminine constitution, their readier tendency to unlimited mutual confidences and tender friendships, must have contributed essentially to soften the rigor of their cruel destiny.

Of males, the Siamese twins, who have kept up of their own purpose, for pecuniary benefits, their long-protracted union, enjoy, as we know, considerable latitude of separate action, by agreement and compromise. Yet they have shown, as we are told, no little impatience with their condition and with each other. It is difficult to conjecture how they contrive to live alternately with their distinct, if not discordant households; and it is evident that, without the most extraordinary influences of the spirit of peace and right, the most skillful jurisprudent will find it difficult, when they make their wills, to effect a satisfactory distribution of their property among their heirs, their surviving wives and children; and, if they are safely dissevered, to say why the "last or longest twa'" shall not lay claim to everything that they may have accumulated during their course of undivided action.

As to the only other masculine double of whom I have read, Aki, the Chinese, there is no reason to doubt that his dwarfish, undeveloped and headless brother could have been at any time dissected away from him. There seems to have been here a spinal column without a brain, and thus, according to received opinions, no distinct or separate personality. But if Sir William Hamilton be right, and mind or soul be not confined to the brain as its exclusive organ or local seat, but diffused wherever there is perception or feeling, this case of the Chinese becomes almost mythically complex and incomprehensible.

ART. II.—A CASE OF APHASIA.

By S. M. BEMISS, M.D., Professor of Theory and Practice, etc., and STANFORD E. CHAILLÉ, M.D., Professor of Physiology and Path. Anatomy, Medical Department, University of Louisiana. (Reported from the Clinical notes of Mr. A. Deloffe, resident student, Charity Hospital.)

Delia N——, aged 32, married, but without children, was admitted to ward 34, Charity Hospital on the 28th of May, 1868. She was a woman of slender form, with blue eyes, fair skin and light hair. Her personal history showed that she had been born of respectable parents and had received a good education. During the early part of the recent war she seems to have lost her social position and is alleged to have become the real or reported wife of several successive husbands. The present one is a policeman and from him the following history of the case is principally derived.

Her health had been generally good until 1863. In the month of March of that year, she first began to complain of a violent pain, referred to the top of the head. The pain is described as having been persistent in character, but marked by paroxysms, during which it was greatly aggravated. We have not been able to learn that these exacerbations observed the periodicity of malarial affections, or that they were nocturnal in their time of recurrence.

Dr. Holliday, of this city, saw the patient at the date of her attack and considering the case neuralgic in character, prescribed quinine and iron internally and cold to the scalp. For the relief of the paroxysms he ordered valerianate of ammonia. He says that he rendered only some four or five visits to the patient, her husband objecting to the cost of the medicines and preferring to employ a homœopath. The husband states that she was severely and repeated salivated while under Dr. Holliday's charge. This gentleman's report of his treatment and his direct assertion that he prescribed no mercurials whatever, entirely disprove this statement. We mention this point only because of the support it gives to a suspicion that the patient had, at some previous or subsequent period undergone mercurial treatment, and that the husband now desired to conceal the circumstances connected with it.

No defects of language, or impediments of speech, or symptoms of paralysis were manifested during the period of Dr. Holliday's professional attendance. Subsequently to this time, the patient seems to have consulted a number of physicians and to have acquired the habit of resorting to opium to relieve her suffering.

The cephalalgia is reported to have steadily increased in violence, but no other important clinical event occurred until in December, 1866. About this period an ulcer made its appearance on the forehead, above the left eye and in the course of a few weeks an ulcer also appeared upon the right leg. After an unstated period of time, the latter entirely healed, but the former still existed at date of admission, and will be hereafter more particularly described. No further change of symptoms is reported until the month of November, 1867, when it was, for the first time, remarked that the patient had a defect of language. The difficulty is explicitly stated to have been at first more notably obvious, in attempts to employ proper names and then all nouns. It was first noticed as the patient emerged from the influence of a large opiate—stated by the husband to have amounted to six grains of morphia. Although the defect was only partial at date of first observance, it grew upon her continuously, but so gradually that the period first marked by entire loss of language, could not be indicated.

Within the two weeks, immediately succeeding the observation of defective speech, the patient was found to be losing the power of moving her right side. Subsequently to their almost simultaneous manifestation, these two symptoms—the aphasia and right hemiplegia—became aggravated at very nearly the same rate of progression.

At the date of admission, (May 28th), the patient was very much emaciated, her right leg closely flexed upon the thigh and her right arm lying across the abdomen. In both these extremities the loss of motion was complete. There existed excessive hyper-æthesia in both the right arm and right leg, but more strongly marked in the latter. A very slight pressure in the neighborhood of the right knee, would give rise to cries, expressive of pain and to efforts to remove the object in contact with her.

Movements of the left arm and hand were pretty well executed. She held bread, candy, etc., and carried them to her mouth without apparent difficulty. She was able to use a fan successfully, and when instructed to do so, she, on one occasion, lifted the right hand with the left and brought it over to the side of the bed. The patient was able to sit upon a chair when placed upon it and would spend several hours, each day, in this position.

There was no evidence of facial paralysis. The tongue was protruded promptly upon request and did not deviate to either side. Indeed, upon one occasion when bidden to do so, the patient turned her tongue alternately to each side of her mouth, thus having the freedom of its movements. There was no difficulty is swallowing either solids or fluids, and the patient ate heartily and with apparent relish. The left eye-ball was slightly more protuberant than the right and its pupil a little larger, and very feebly sensitive to light. There was likewise perceptible drooping of the lid of the left eye, but the orbicularis palpebrarum was not in any manner affected. With the exception of these, not very strikingly marked changes, the facial aspect was natural and rather intelligent in expression. But Trousseau has observed that the countenance may express intelligence without indicating a high degree of intellectual power, and instances the face of the dog in illustration.

About one inch above the middle third of the left superciliary ridge, the coverings of the cranium had sloughed away, leaving the bone bare and necrosed over a space nearly the size and shape of a silver dime. The edge of the ulcer was dry and retracted, but it was evidently not malignant in its character. As before stated, this ulceration had first manifested itself in the latter part of December, 1866, and had, therefore, preceded the occurrence of either the aphasia or hemiplegia, but had not appeared until after eight month's duration of the cephalalgia and other head symptoms. It is not possible to account in a satisfactory manner for the existence of this ulcer, or to determine from known clinical events, its relations to the intercranial disease. Close to the border of the ulcer, and it may be, losing itself in it, was a faint line from an old cicatrix. The husband accounted for this by stating that the patient had received a blow from the falling of a bed-post, in the year 1863. This was before his marriage to her and the information was communicated to him by the patient, quite a long period after its occurrenee. She had further informed him that the severity of the blow rendered her insensible and severed the scalp to such an extent that Dr. Moss found it necessary to close the wound with sutures.

Dr. Moss is not able to recall any such service as she alleges that he rendered, although he retains an indefinite recollection of having prescribed for the patient at some period anterior to 1866, and thinks that the prescription was for the relief of cephalic pain. The difficulty which chiefly opposes a conclusion looking to the effects of this blow as the cause of both the exo-cranial and endo-cranial disease, consists in the facts that its occurrence was so long prior to the date of attack, and that the health of the patient during the intervening period of three years is not spoken of as having been impaired, and was, at all events, sufficiently satisfactory to admit of her marriage. This point will be again referred to, and our object in merely broaching the discussion in the preceding sentence is to afford explanation of the surgical procedures resorted to in the treatment of the case.

A dark, muddy colored cicatrix covered the seat of an old ulcer on the inner aspect and about the middle of the right leg. One or more slight elevations was found upon each tibia. There were no scars about the labia or inguinal regions, or any other indications of syphilis sufficiently well-marked to justify settled conclusions in regard to its presence. The husband very pointedly and positively denied that either he or the patient had ever been affected with this disease.

The aphasia was complete. The answer she gave to all inquiries or conversation was uniformly "day, day." If expostulated with and forced in an imperative manner to give some reply to questions addressed to her, she uttered this word with more energy—repeated it oftener and gave it an additional emphasis by terminating it with "O" thus, "day-o, day-o." When a pencil was placed in her hand and a sheet of paper in position before her and she was told to write, she made a bold dash and rapid movements over the paper, but none of the lines which she produced bore the least resemblance to a letter. She had been right-handed, and it was affirmed, had once written rapidly and legibly.

The only known disorder of spinal sense consisted of the extraordinary state of her perr-æsthesia, previously described; but there was presumable impairment of sight in the left eye. It was impossible to learn what degree of injury the function of this eye had suffered, but the sense of vision was so well preserved to the patient that she could recognize her husband, or the nurse, at the end of the long ward, and, as her husband asserted, sufficiently well to enable her to read letters which a female friend occasionally wrote to her. Hearing did not seem to be abnormal, although the husband suspected deafness in the left ear. Taste was unquestionably retained and apparently in a normal state. The testimony, in reference to smell, is somewhat contradictory. The husband affirms that it was not lost, but his opinions are principally founded upon the effects following the inhalation of camphor, ammonia, etc., a failure to distinguish between the function of smell and mere excitement of the nerves of general sensation distributed to the schneiderian membrane, not always confined to the non-professional. On the other hand, the patient, on one occasion accidentally smeared her hand and face with fæcal matter and evinced such an absence of any indication of disagreeable smell that the conclusion is a very reasonable one, that the power ot perceiving odors was greatly impaired, if not totally lost. The patient's urine and stools were passed in bed, but regularly, both in respect to amounts and periods.

The treatment ordered was sustaining and alterative Liberal supplies of nutritive and easily digested diet were directed. She was permitted a glass of milk punch daily and three table-spoonsful of cod-liver oil. After a few days, five grains of iodide of potash were added thrice daily to the list of her remedies. In view of the knowledge obtained in reference to the patient's habitual use of opium, and to mitigate the intense suffering occasioned by every attempt to change her position, she was, on the day of her admission, ordered one-third of a grain of morphia to be repeated regularly three times a day.

Whatever points of clinical history, or theories might be looked to, to account for the existence of the external ulcer, its presence upon the coverings of the left hemisphere in a case of aphasia indicated a relation between it and the more important lesions within the cranium. What these lesions were was a matter of conjecture purely, but there was a possibility that the trephine might remove pressure or permit the escape of matter. Accordingly, the advice of Prof. Richardson was requested, who at once concurred with us in justifying the operation and consented to perform it.

At this visit of consultation, Prof. Richardson forced the blade of a pair of dressing forceps into the margin of the ulcer upon the forehead and removed a circular disk of the necrosed outer table equal to a dime in size.

Prof. R. trephined the patient on the 17th of June, in the presence of a large number of medical gentlemen and students.

The bit of the trephine was placed in the centre of the circle of necrosed bone so as to include within the crown the whole of the diseased surface. The bone was found very much thickened, the diploe absent, the inner table looking perfectly healthy. The dura-mater was highly vascular, but not distended or otherwise unhealthy. Pulsation of the cerebral mass, both cardiac and respiratory, absent or inappreciable. The patient was freely narcotised with chloroform and both the radial pulse and respiratory acts were feeble. Pressure upon the membranes gave impression to the junior writer of an underlying substance more resisting than normal cerebral matter.

On the 18th the patient's condition was as good as it had been previous to the operation. Indeed no difference could be noted as to her general state. The cardiac pulsations of the brain were strongly marked; the respiratory pulsations could not be made out. We mention here the clinical fact, (leaving its discussion for a future page,) that neither upon this nor upon any subsequent occasion, were we able to note pulsations of the brain corresponding with the respiratory function, and, also, that at certain times, all cerebral movement whatever was apparently absent, and yet no alteration in the patient's condition could be observed by which we might explain the difference thus observed.

On the 20th, the patient's condition was decidedly less favorable. Her countenance was more dull and she showed a disposition to sleep continually. Opium omitted.

On the 21st, the patient was still more soporose; could with difficulty arouse her to take her food. No longer seems to recognize persons. Membranes rather more prominent. On the succeeding day, Prof. Richardson punctured the dura-mater. No fluid normal or abnormal escaped through the puncture and only a small amount of blood flowed from the severed vessels of the dura-mater. It was found, upon to-day's visit, that her pulse had arisen in frequency to 108. From this period until the 28th, there was no very marked change in the patient's condition, although, as obvious to all, she was gradually failing.

On the 28th, difficulty in swallowing and very nearly complete coma were manifested. The patient was supported by nutritive enemata until the 30th, when death occurred at 5 P. M.

ART. III.—A CASE OF VARICELLA, WITH SOME COMMENTARIES ON THE IDENTITY OF VARICELLA AND VARIOLA. [Read before the Boyle County Medical Society, July 28, 1868.] By JOHN D. JACKSON, M.D., of Danville, Kentucky.

Thursday, July 2, 1868, Mr. H. E. S., æt. 32, consulted me at my office, complaining of feeling generally indisposed and having a sensation of slight chilliness, together with a good deal of pain in the small of the back. He said he had been abroad fishing, a few days previously, and during the time slept upon the river bank, and to this he attributed his illness. Pulse scarcely accelerated, tongue clean, skin natural in temperature, pliancy and moisture, bowels regular, no nausea. A moderate amount of pressure over the lumbar muscles elicited pain. Was inclined to the opinion that he was suffering with a simple attack of lumbago, which opinion, the painfulness of the lumbar region on pressure tended especially to confirm me in.

Advised quietude and no medicine for the present. Before leaving he attracted my attention to what looked like a small commencing furuncle, situated upon the manubrium of the sternum and said that he had another just like it upon his hip; each of which he declared was quite painful.

Friday, 3. Saw him at his house. Found him pretty much as on yesterday. He said that in the morning before sending for me he had felt chilly, and had high fever for an hour or two, but found him at the time of my visit perspiring. Advised quietude within doors; no medicine.

Saturday, 4. Was chilly in the morning, as on yesterday. His chest and back are covered with papules, and on his right hip are several vesicles or blebs covered with a very thin cuticle; some are filled with a transparent serum and others with a serum of a faint reddish color. The base of each vesicle is surrounded with an areola, the size of the largest vesicles being about three-tenths of an inch in length and two-tenths in breadth. Those about the hips and lower portion of the abdomen are located athwart the body, *i. e.* the long diameters of the vesicles are at right angles to the axis of the body. There are some faint appearances of papulæ coming upon the face and some are visible in the hair. On the back of the neck, near the hair, are divers papulæ and several vesicles, though the latter are very small and perfectly translucent, with a very thin skin covering them, and are without any areola, looking precisely like drops of water dashed upon the skin. He says the eruption itches slightly.

Sunday, 5. Face thickly papulated; back thickly covered with papules, some of the spots on the back which were yesterday papulous are to-day vesicles, those on the right hip are, as on yesterday, fully distended, translucent, and not in the slightest degree umbilicated. Some vesicles are now visible on the left thigh and upon both arms. Upon the back and face, the eruption is very thick, sparsely so on the abdomen and arms and a very few only of the vesicles, are to be seen upon the legs. There are two or three spots visible in the palm of each hand and the sole of each foot. The spot first noticed on the breast and that on the hip, are each distinctly umbilicated and filled with a pearly fluid. Pricked a vesicle upon the arm and it collapsed perfectly, falling to a level with the undiseased skin. There may now be seen some papules in the roof of the mouth, a thing not seen yesterday, though looked for. Complains of "feeling badly generally."

Monday, 6. The papules on the face have become pustules, and three on left side of the forehead and one on the left *ala nasi* are distinctly umbilicated and the areola around is very distinct, as much so as I have ever observed in many cases of variola. On placing my fingers on each side of a vesicle and stretching the skin, the redness constituting the areola entirely disappears, but in a second or two reappears on removal of the pressure, the vesicle itself the while remaining permanent. The large vesicles on the chest and thigh remain as on yesterday, the very large ones before mentioned, one upon the sternum, the other on the hip are perfectly unbilicated, and the one which was pricked on the left forearm and perfectly collapsed yesterday, shows to-day an appearance such as small pox exhibits about the tenth day, or the time of its subsidence. He, to-day, expresses himself as feeling very well and has a very good appetite.

Viewing the case as it presents itself, I can come to no other conclusion than that it is one of varicella, though several of the vesicles are distinctly umbilicated and the face is certainly more thickly covered than I have ever seen it in this affection or the authors treating of it have led me to believe. One hundred and sixty-six papules may be counted on the face, though what is noteworthy is that the eye-lids have not a single papule or pustule upon them, and the conjunctivæ are perfectly clear. My personal recollection of varioloid is, that in every case in which there was even a slight eruption upon the face, there has been an eruption of at least one, and generally more papulæ upon the eye-lids, and the conjunctivæ have been slightly affected.

As exceptional to the rule regarding the face being slightly implicated in varicella, while it is especially affected in varioloid in proportion to the rest of the body, is a case of confluent varicella reported by Mr. Pidduck, in the reprint of the London Lancet, May number, of the present year.

While still believing the case to be one of varicella, it was yet deemed a duty to the family to express the doubt which was attached to the formation of an opinion and to advise all the precaution which would be proper, were it a case of varioloid.

Tuesday, 7. Most of the pustules are accuminated, and filled with yellow matter, though at intervals there are certain ones which are perfectly umbilicated. Many of them are scabbed. The areola is still distinctly marked, though I think, narrower, at present, than I have seen it at the same date in variola or varioloid. The pustules, even those which are umbilicated, I do not think, have the same pearly or milky hue which small pox and varioloid pustules exhibit. No odor has ever been detected. Though considering the aspect of the case, in connection with its history, I can only entertain the same opinion which I have hitherto expressed, yet I am ready to admit that a simple glance at the patient would, in nine instances out of ten, elicit an expression pretty certainly pronouncing it varioloidal.

Wednesday, 8. The scabs have, in a great measure, fallen from the face in thin scales, not crumbling into powder, as the scales of chicken-pox are described as doing. There are three of the scabs which yet stick tightly on the left side of the forehead. But few of the scabs have fallen from the chest and the pustules on the abdomen and hips have not dried up, nor any than those, before alluded to, become umbilicated.

Thursday, 9. Face to-day entirely clean, save two scabs on the forehead and one on the nose which are still adherent. Excepting those which are athwart the body, which are yet distended, they are withering and drying up rapidly over the entire body.

Friday, 10. All the person nearly is clean, a very few scabs remaining. The seats of the pustules are left slightly reddened, though nothing like so deeply as anticipated. Dismissed.

Have examined him two weeks since and find three pits on the forehead and one on the nose, at the seat of the umbilicated pustules, and six or seven on different portions of the body. The pits seem to be narrower in diameter and deeper, in proportion to their breadth, than in variola. They are, also, much whiter we think, and present clearer cut margins and less of the grooved or seamed appearance at their edges than are seen in small-pox pittings at this date.

Commentary.—The difficulties in the way of forming a positive conclusion in the case related, are of such a character as to cause us not atall to wonder at the statement of Dr. Geo. B. Wood, when he says: "Indeed I have occasionally met with cases during the prevalence of small-pox, in relation to which it was impossible to decide with certainty, whether they were variolous or varicellous."

A proof in the nature of an *experimentum crucis* might have been drawn from an inoculation of the contents of the vesicles upon an uninfected third person, it is true, but the risks attendant thereupon, would certainly have made it unjustifiable. There was a lady in the house who had never been successfully vaccinated, and who, to the present has remained free from the affection. It should, however, be mentioned, that she deemed herself proof against small-pox, declaring, in reply to any advice to to the family that she ought to be vaccinated and not remain any longer within the household, that she had been repeatedly vaccinated and that it would not take, and that she had once waited on a person who had small-pox.

It is proper to say that Mr. S. had two perfect vaccine scars, and to say, furthermore, that two weeks previous to his attack, I had been consulted with reference to the case of his little son of three years of age, who, when I saw him, had just had to fall from off his body, the remains of an eruption of identically the same character as that which his father subsequently had, and which had left upon him several well-marked pits.

The child also bore a good vaccine mark. None of the family have since become affected, nor have I heard of any adjacent or elsewhere, suffering similarly, though at the time the little boy alluded to, was affected, I heard of an infant in another portion of the town being sick with what was diagnosticated as chicken-pox. As is known, we have not had a case of small-pox in this vicinity for a year past.

An examination of the literature treating of the natural history of varicella, shows us a much wider discrepancy of observation, than is common with reference to most diseases, or indeed, as it seems to us, there ought to be exhibited, for: Firstly. As to the period of incubation, Gregory thinks it does not exceed four days generally, and is always less than a week. Heberden says eight or nine days, Trousseau from fifteen to seventeen, and Dr. Gee, who has recently written upon the subject, says according to his observation, about a fortnight.

Secondly. Heberden, Plenck, Bryce and Gregory describe the eruption as being generally ushered in without chill, fever, or premonitory signs. Dr. Wood describes the eruption as generally ushered in by fever, which has not usually been preceded by any observable chill, though observes that the fever is sometimes entirely wanting. Willan said that he did not remember a case, which did not exhibit premonitory signs, such as languor, fever, and pains in the back, head and limbs. There is a pretty general agreement among them, observing premonitory fever, in confining its duration to twenty-four hours, or two days at the farthest.

Thirdly. Drs. Bryce and Gregory declare the eruption, from the very first, to be composed of "vesicles of about the size of a split pea, perfectly transparent and covered by a thin cuticle." Heberden, Wood and Gee describe the vesicles to be preceded by a red spot or papule.

Fourthly. Upon the question of the umbilication of the vesicle, usually deemed the most important of the strong points on which we build our conclusion, we, by no means, find that uniformity in observation which the general reliance upon it, in the erection of a differential diagnosis would make us suppose. Cross says, all cases indented before incrustation, must be distinguished from chicken-pox. Dr. Gregory, that there is "no central depression;" Dr. Flint, that "the central depression or umbilication in varicella is always wanting," while Heim describes a variety depressed in the centre. Dr. Geo. B. Wood declares that, "in certain rare cases of what seems to be varicella, umbilicated vesicles appear mingled with the others, and sometimes leave behind them some deep pits," and Dr. John Murray, in the case of two of his children, when he had the opportunity of watching very closely, saw four or five of the pocks on the forehead and back very distinctly indented, which were harder to the feel than the others and left pits.

Though Rhazes (9th century), Ingrassias (1550), Vidius (1646), Morton (1690), (who by the way introduced into medical nomenclature the word *chicken-pox*), Fuller (1630), and probably still many others, made a distinction between varicella and variola, yet the definite separation of the two, so essentially distinct, affections seems not to have been generally admitted by the profession, until the excellently defined description of the former disease, as drawn by Heberden just 100 years ago, under the title variolæ pusillæ, and may be found in chapter 96 of his

"Commentaries." Since that time, English physicians, generally, have admitted the demarcation between chicken-pox and small-pox to be as clearly defined, as they have the distinction between scarlet fever and measles, since the Essay of Withering, on scarlet fever, in 1793.

But even upon this point, we do not now at the present day, find anything like universality of agreement, for though ,for fifty years, medical men, without dissent, seem to have accepted the opinions of Heberden, the great majority of English writers, such as Gregory, Elliotson, Watson, Wood, Chambers, Aitken, Flint and Gee, coincide with him in the belief that the diseases are not phases of the same thing, but spring each from entirely distinct causes, yet, since the "account of the varioloid epidemic in Scotland, in 1820," by John Thomson, in which he very ably contends for the identity of the two affections, the question has been reopened, and on the other side are to be found the names of Eberle, J. Hughes Bennett and DaCosta, disputing the validity of the distinction. Going outside of England and America, we find, probably the weight of authority preponderating on the other side, and we, to-day, find Hebra, of Vienna, generally acknowledged to be at the head of the dermatologists of the world, declaring that "to assume the existence of distinct epidemics of variola and varicella is a notion which will hardly enter the mind of an experienced physician." He says: "We often see that a patient, with undoubted varicella, can give rise to several cases of variola vera." Trousseau, on the opposite side, declares that one may "expose an individual to take varicella and he will never take variola."

One of the strongest arguments in behalf of the essential non-identity of the two diseases, is that dwelt upon by Elliotson and Sir Thos. Watson in their "Lectures," and quoted from Möhls' work *De Varioloidibus et Vari-*

cellis, in which he says that, from 1809 to 1823, chickenpox occurred annually in Copenhagan without the concurrence of small-pox, and that though both diseases have since prevailed epidemically, yet, that the circumstances attending their prevalence were such as to satisfy the physicians of the city that their sources were distinct. To this, Eberle makes the objection, that Möhl does not deny that "during the prevalence of a small-pox epidemic in that city, varicellous affections were constantly present." This objection, which seems to be nothing more than an application of an antiquated aphorism, we think of scarcely weight enough to require notice. We recollect ourselves of once seeing distinct umbilicated vesicles in the midst of an eczematous eruption which a child happened to be suffering from, during the prevalence of a small-pox epidemic.

But the most complete proof of their difference of which we are aware, (which seems to have been entirely overlooked by Dr. Watson and others), and which we recently came across while examining the literature of the subject, is to be found in the fifteenth volume of the London Medical Gazette, in the shape of a report by Dr. John Murray, stationer, at the Cape of Good Hope, in 1834, and communicated to the journal by Sir James McGregor, who, we believe, was then Deputy Inspector General of the troops stationed there.

Dr. Murray declares that "varicella exists throughout the colony and prevails, more or less, every year, without ever having been known to give rise to variola."

From the records in the Colonial office he found that variola was first introduced into the colony in 1713, by a ship from India; that the second time of its appearance was June 21, 1755, when it was introduced by a ship returning from Ceylon in consequence of the inhabtants of the colony purchasing the wearing apparel of those who had died of small-pox aboard the ship during her voyage. Each time, the mortality was described as fearful and the ravages of the second epidemic did not cease until March, of the following year. On the 11th of the month, the Governor-General ordered a fast and thanksgiving, in commemoration of its cessation. On the 5th of June, 1767, twenty years after, it again made its appearance, having been imported by a Danish vessel homeward bound from Ceylon, and on which the disease had raged, several persons aboard dying from it during the voyage. The affection first appeared in Cape Town, where the clothes of some of the passengers were washed. Until March, 1812, a period of fifty-two years, itno more appeared, but at that time was reintroduced by a condemned slave-ship from Mozambique, the negroes having small-pox being landed among the colony. Between the time of landing of the slaver and the following July, 240 persons in Cape Town were seized and nearly one half died. Since 1812, to the time of Dr. Murray's writing, no case of small-pox had occurred in the colony, though, as stated, epidemics of varicella, which affected alike the vaccinated and unvaccinated, have been of yearly occurrence, he, in the meanwhile not knowing it "to give rise to variola or varioloid disease, nor to have been the result of variolous contagions."

Here in this locality, (Danville and vicinity), it is well known that there had not been a case of small-pox for more than twenty years prior to the war recently closed, and yet during the period, there was not a physician in practice who, we suppose, did not frequently see sporadic cases of chicken-pox, if he was not witness to an epidemic of it.

ECLECTIC DEPARTMENT.

"Carpere et Colligere."

Art. I.—New Researches of a Practical Nature, on Amblyopia and Amaurosis, caused by the Abuse of Tobacco–Smoking, with remarks on the Amblyopia and Amaurosis of Drinkers. By Prof. T. Sichel, of Paris. Translated from the French for the Richmond and Louisville Medical Journal. By Wm. Mason Turner, M.D., B.P., Philadelphia, Pa.

In February, 1863, I presented to the Medico-practical Society of Paris, a *communication on the amblyopia and amaurosis, caused by the abuse of tobacco-smoking*. This communication, published in the Union Mēdicale (1863, May 5th, No. 54), has had the good fortune to call attention to a form of amaurosis, before but little known, and which since then has been the subject of many articles in the medical and opthalmological journals and of a controversy not yet closed. It is my purpose in this paper, to reproduce my researches on this subject, to add to them some parts of an article, now quite old, which I found already prepared, but forgotten, among my papers, and give some new remarks deduced from my unpublished experiments. It behooves me to provoke on the part of my confrēres, a more profound examination of the question and a more attentive study of an affection, which I believe frequent, and especially the more dangerous, as at the moment it is recognised, it is generally already very old, deep-seated and obstinate.

Among *cerebral amauroses* there are two kinds but little known, sufficiently frequent, however, and both difficult to cure. The first is that which is *caused by the abuse of spirituous liquors*, and which I was the first to describe (in 1837), under the name of *amaurosis, symptomatic of delirium tremens*. The second is that *produced by excess in tobacco-smoking*, described first by Mackenzie in his *treatise on the diseases of the eye*, and of the existence of which, I did not formerly believe, since, in my work mentioned, page 713, in the chapter given to *amaurosis cerebral by* *narcotics*, I have not referred to it. Since then, the observation of twenty-eight years has compelled me to regard the first as frequent as the last, and I had, for the first time, so described it in 1863. I am even convinced that there are few persons, who, for a long time, can consume more than twenty grammes of smoking tobacco a day without their vision, and often their memory, becoming enfeebled. Among others I have seen, now about fifteen years ago, a man of forty years of age, become completely blind, solely by the use of tobacco, in smoking, and in whom the amaurosis, defiant to all other treatment, was completely and medically cured under my direction, by an antiphlogistic and very moderate derivative treatment, and by the cessation of the abuse of this narcotic smoking. This man drank nothing but pure water, or water slightly reddened with wine; but from morning until evening, he did not lay aside his pipe, which he even placed near him, *well-filled*, on going to bed, to serve him several times each night in his interruptions of slumber. He has forever renounced this sad habit and his cure remains complete.

Cases of this category, where amblyopia or amaurosis, is occasioned solely by the abuse of tobacco, are less rare than one would think. I could recall many, but it would be superfluous, because each resembles the other exactly. I have never seen a case where the baneful action of tobacco could be attributed as many would have it, to an idiosyncrasy, to the inexperience of the smoker, to his lack of method, or to dyspepsia or a consequent marasmus. My observations have been based on the cases of experiencd smokers and who suffered no other bad effect. Often, as in the first case given above, the patients are robust, full-blooded and possess good constitutions. We can not determine in their case, any other disease, than the weakening or abolition, more or less complete, of vision; often, the enfeeblement of memory, sometimes to a certain degree of general stupor consequent on the stupefying action of the fumes of tobacco. If there are many smokers who can resist for a long time this action, it will be found that they can do the same with the narcotics, opium for example, of which enormous doses may sometimes be borne, without apparent bad effects by those who commence its use gradually. This does not hinder smokers and opium-eaters, however, from succumbing under this continued stupefication, having more or less lost their intellectual faculties and fallen into a marasmus and sottishness.

These two species of cerebral amaurosis are characterized, the one and the other, by the absolute or almost entire absence of the symptoms of cerebral congestion, intense or well-pronounced. These symptoms have something of vagueness about them; most frequently they are uncertain, hesitating, as it were, to mark sthenic or asthenic amaurosis, without either one being unmistakably denoted. Up to the moment, when the particular cause is discovered, they can leave the doctor in uncertainty, in the hesitation as to their seat and their nature, and sometimes even in their very perplexity. Opthalmoscopic symptoms, as in the most of old cerebral amauroses, are negative or but little pronounced: the optic papillæ being at one time very white, especially in one of their halves; at another, a little injected; their contours badly circumscribed—sometimes partially effaced; the retina a little injected; the central vessels at one time normal, at another enlarged; the central veins, especially, sometimes very much enlarged. When this affection has arrived at its last stage, it has characteristics common to all other cerebral amauroses. In the two species (above referred to), as in most cerebral amauroses, memory is often enfeebled. Amaurosis, occasioned by spirituous liquors, is often accompanied by a trembling, which the patient shows in the hands, especially before breakfast—a veritable commencement of *delirium tremens*, so marked, so true, indeed, that, at a period a little more advanced, vomitings of mucous, bilious or acrid matters, occur likewise in the morning (*vomitas matutinous potatorum*). These two species of amaurosis, both very slow in their march towards a cure and very rebellious to treatment, as is the case with all affections occasioned by a bad habit, and difficult to extirpate, are often seen separately, but it is not rare to find them united. In such an event it is difficult to determine what is the part each of the etiologic agents—alcohol and tobacco—play in their production.

I give, here, an example of an equal combination of these two kinds of amaurosis, an example very remarkable and worthy of mention, on account of its being a solitary case and for the marked and prompt amelioration observed in *six weeks*, while, generally speaking, three, six or even twelve *months* are necessary, before the patient experiences an appreciable change in the sight. We well know how slowly and with what difficulty patients get well, who for some unique or peculiar cause possess an obstinate, inveterate habit, which, so to speak, becomes a second nature, consequently very hard to throw off. * * * This observation has the more importance, that one of my honorable confréres, M. Morpain, who sent me the patient, was enabled to watch the march of the malady and, finally, its disappearance.

A farmer, forty years of age, steady and well-blooded, came to see me on the 15th of December, 1862, complaining, since six months about, of an enfeeblement and marked weakness in his vision, before-time very good and very long. With the right eye he could read no more than the character 11 of Jaeger's scale, and with the left eye than the character 13. Two circumstances at once struck me: the absence of well-pronounced symptoms of cerebral congestion and of positive ophthalmoscopic phenomena (the ophthalmoscope determined nothing well, but presbyopia), and the presence of an alcoholic odor, as if the patient had taken wine or ardent spirits, notwithstanding the very early hour. He obstinately denied using strong drink and only confessed to taking a little pure wine, but he frankly admitted that he smoked a great deal. At the same time he admitted that every morning before breakfast he vomited bitter, acid mucous matter, and that he had a trembling in his hands. Without noticing his denials I declared to him, in a very categorical manner, that he must at once renounce alcohol and tobacco, or that he must reduce the amount of each which he was in the habit of taking, and follow a specified treatment. Thanks to this energetic intimidation, he reformed entirely his manner of living, and returned to see me on the third of February, with a considerable amelioration of symptoms in every respect. The left eye could readily read the character 8 of Jaeger, and almost the character 7; the right eye the character 7 and almost the 6. The trembling in the hands and the vomiting in the morning had entirely ceased. He had scrupulously, as I had enjoined upon him to do, followed my directions, with some modifications. These are my two consultations and directions:

No. 1. Reduce the tobacco (smoking) one-third or a fourth. Renounce entirely cognac, *liquers*, wines and pure coffee or spices. A moderately nourishing regimen, no salt. For table drink, weak beer or water just reddened with wine (*l'eau faiblement rougie*). Quit reading, writing, or any work on small objects, in general. When in the sunlight wear large goggles (unnumbered) and slightly smoked. Exercise often the sight on large objects, at a distance.

To purge himself with the following powder:

℞.—Rhei pulv., magnes. carbon., āā one *gramme* (vide note—W. M. T.)

On the next day, commence to take, morning and evening, one packet of the following powders:

℞.—Rhei pulv., magnes. carbon., āā grammes v. *M.* Divide in twenty papers, and besides that, to use the following unguent:

℞.—Adeps, grammes x, cupri oxyd nigr. grammes j. *M. ft.—Homogenous unguent.* Rub lightly on the forehead and temples, four times a day. Wipe away each time, after one hour. Take a foot-bath with salt, twice a week, and wash the eyes (closed) often with cool water, especially during the foot-bath.

After having used two jars of the ointment, stop it, and place on the forehead and temples, a series of five blisters, as large as a two-franc piece. Then ointment for four or six days when the first will have dried. This was December 15, 1862.

No. 2. Continued the observance of the rules above given. Must not read or write, except in case of absolute necessity, and following these rules: place the object at as great a distance as possible, and stop every two or five minutes to rest the vision by looking at distant objects. On the next day apply six leeches to the anus and, on the day after, commence to take, every morning before beakfast, in a little sweetened water, one or two spoonsful of the following powder:

℞.—Potas. bitart., magnes. carbon—āā grammes xv. *M.* Every third day suspend taking this powder for two days, and take instead, morning and evening, one of the papers of rhubarb and magnesia. Use one more jar of ointment. In fifteen days take another purge, and on the following day apply eight leeches to the anus. The day following this, recommence the treatment above directed—powders of cream of tartar, etc. Eight days later, commence, in addition, the employment of the following liniment:

℞.—Spiritus rosmarui., grammes xxx; balsam of fioravanti, grammes xv, (vide note, W. M. T.) Tinct. lavand. gramme j.

M.—Liniment. With a teaspoonful of this liniment, rub gently over the forehead and temples three times a day.

Fifteen days later renew the series of five blisters. This was to the third of February, 1863. To this observation M. Morpain has added, that the causes pointed out by me have been verified by himself. In this patient, who was a great sportsman, the vision, in the month of September, 1862, was so feeble that he dared not trust himself in the chase, and finally, in attempting to shoot, notwithstanding before this, he was exceedingly far-sighted, he could distinguish nothing but the flash of his gun.

The treatment of amaurosis caused by tobacco, as is that of amaurosis following the abuse of liquor, is very difficult. It varies according to the degree of the complaint and its complications.

In the cases, not numerous, where the indications of well-pronounced cerebro-ocular congestion exist, it is necessary to attack it vigorously, according to its intensity with anti-phlogistics and derivatives. Where there is no complication, of a very positive cerebro-ocular congestion, on the contrary, bleeding can be employed, but to a limited extent. In all cerebro-ocular congestions, passive or already very old, too liberal applications, even by leeches and wet cups, but especially by bleeding even moderate, will at once destroy vision, which oftentimes is slowly and incompletely restored. On the other hand, excitant remedies, external or internal, the alcoholic or ammoniacal liniments and blisters, camphor, strychnia, etc., employed *before* a moderate antiphlogistic and derivative treatment, *increase* the complaint. When then the cerebro-ocular congestion is but little marked, or is lacking, it suffices to administer in the first stage of the disorder purgatives and aperients, especially the cream of tartar combined with magnesia in equal parts (when the stomach is good) and to alternate with these the aperient pills of gum ammoniac, sulphate of potassa and aloes. The author's favorite formula is, to-wit:

℞.—Gum ammoniac. sulph. potass., āā grammes v, aloes, barbadoes, grammes ii to iij. *M. ft.* pil. L. Sig. 2 to 5, morning and evening.—*Translator.*

However, these means do not always succeed with drinkers, in whom there is already a disposition to bitter-mouth (*digreurs*) and still less when the morning vomitings have commenced. To resume: very small doses of rhubarb and magnesia (15 to 25 centigrammes of each), administered thrice a day, an hour before meals, are excellent in these cases, to reëstablish the functions of the stomach and as aperient and derivative. A mineral lemonade, prepared with ten or a dozen drops of eau de rabel, (vide note, W. M. T.) to each glass of gum water, sweetened with the syrup of bitter oranges and employed in small quantities, is very useful, where digestion is not enfeebled. The cessation of the cause, however, plays the principal part in the cure; but we know very well, how difficult this is to obtain. Bathing the eyes closed, and the forehead with cold water, hot pediluvia, dry cups and sinapisms to the inferior extremities and to the lumbar region, are useful auxiliaries.

In the second stage the excitant liniments used in frictions to the subjacent affected parts, blisters to the nape and behind the ears, at first, then on the forehead and temples, later in rebellious cases, even internal excitants, (arnica, camphor, nux vomica, strychnia, phosphorrus,) find their indication. But the chief condition and the *sine qua non* of the cure, without which all means are ineffectual, is *cessation of the use of tobacco*—both in smoking and snuffing.

This latter exercises on the vision and memory an enfeebling action, similar to that of smoking tobacco, but much milder and more slowly. If I have not observed a case, where the abuse of taking snuff, has of itself occasioned a very marked weakening of the sight, I have nevertheless seen amblyopic and amaurotic patients, in whom the narcotic had been introduced by the two ways at the same time (smoking and snuffing), without any other apparent cause of the disease and where, in consequence, it was rational, to attribute to snuffing, a part of the existing symptoms. It is necessary then, in similar cases, to diminish notably the quantity of tobacco, to restrict the patient to one or two small pipes, or the same number of cigars by the day and to substitute for the snuff a sternutatory powder non-narcotic, such, for example, as a mixture of equal parts of powdered florentine orris root, candied sugar and Indian chestnut, or the three first substances alone. I have often seen the cure held in abeyance until this indication was fulfilled. A note preserved among my *cartons*, and dated February, 1851, gives an account of an amblyopia, very advanced, of this nature. The patient could read no character; he had been completely cured by many months of abstinence from tobacco, aided, it is true, by the treatment above indicated; but all which was of no avail when the patient again abandoned himself to smoking the narcotic. And why should the effects of snuffing differ, other than quantitatively, from those of smoking? Has it not the effect too, as in the latter case, of creating a positive and often notable absorption of nicotine? An autopsy has revealed in many parts of the cadaver of a noted snuff-taker, a very considerable quantity of nicotine. There can not then exist any doubt of the analogy between the baneful effects of the two habitual modes of the employment of nicotia.

The existence of amaurosis, caused by tobacco, has had its contradicters, but the arguments, which they have brought forward, have not been sufficiently conclusive as to shake my convictions, based on facts already numerous and confirmed by observers worthy of confidence. Woodsworth has reported three very positive cases of amaurosis occasioned by tobacco. This author, in the last of the three cases, has observed a brilliant whiteness of the papillæ of the optic nerves. * * * It is this peculiar tinge of the papillæ which I have described in my first article. "Hart contests this organic etiology. He has not met with it in inveterate drinkers, while he has determined its existence in women and children who do not smoke."

This remark is perfectly just, without at the same time being able to be brought forward as an argument against the existence of amaurosis caused by tobacco. I have expressly said in my first article that this white appearance of the optic papilla belongs in common to amaurosis from tobacco and to cerebral amaurosis in general. It is a special form of commencing atrophy of the papilla, already described by me, as belonging to many species of cerebral amaurosis, especially the organic. It is not astonishing that it is found likewise in a great number of cerebral amauroses, *not* provoked by the abuse of tobacco, and as well among women and children as in men.

Hutchinson gives the statistics of sixty-five cases of cerebral amaurosis. In this number he found thirty-seven men suffering from double idiopathic amaurosis, among whom twenty-three were noted smokers and ten were addicted to strong drink. Facts of this nature, and they are numerous, speak louder than all arguments; the conclusions of Hutchinson tend to the admission of cerebral amaurosis, produced by tobacco. Of a truth, he adds, "that it is difficult to understand how the toxic principle of tobacco acts uniquely on a nervous ganglion (centre of the gray matter) to the exclusion of all others." We would ask of him, in our turn, to explain how, in congestive cerebral amauroses, it often happens there is congestion from the beginning, limited solely to the origin of the optic nerves and which produces nothing but a trouble or weakening of vision, without any other cerebral symptoms? How, in the more advanced stages of the same complaint, complete blindness can exist without deafness, without loss of smell, without difficulty of speech, without any symptom of paralysis of the extremities? How the other forms of amaurosis (cerebral or spinal—non-organic) can present no other lesion than that of the organ of vision? Finally, how hysterical amaurosis, can exist without pathological phenomena in any other point of the brain or nervous system? The ultimate reason of parallel, circumscribed pathological alterations and of the action of causes limited to a single point of the nervous centres escape us in the actual condition of science; but we are forced to accept them with the nosology and etiological elements which surround them every time, that by an exact observation, we find again and again the same coincidence of pathological phenomena and causes. Moreover, it does not appear to me more difficult to explain the production of a passive cerebral congestion, confined to the origins of the optic nerve from the toxic effect of a narcotic than from any other etiologic agent. For my part I find so often this particular form of amaurosis, without any other cause than the abuse of tobacco-smoking, and always the same special symptoms which I have indicated, that from day to day, I am the more convinced of its actual existence.

I can but then recommend to my confrères to give heed to all which I have set forth, and I am convinced they will not fail to meet a notable number of amauroses cerebral, to which they can assign no other cause than the abuse of nicotia and which they will fail to cure unless they remember the source of the evil. Here, as elsewhere, it is necessary to know how to eliminate the complications. I have said frankly in my first article that this species of amaurosis is found much more rarely alone than complicated; however, the cases without complications are frequent enough to enable us to deduce from them a concise exposé of the disorder.

As for amaurosis, produced by the abuse of alcohol and spirituous liquors, I described it for the first time, in 1837, under the name of *amaurosis, symptomatic of delirium tremens.* In my clinical lessons I have often spoken of it under the same name and under the names of *amaurosis by the abuse of spirits, or the amaurosis of drinkers.* I believe it well known at present; but to my great astonishment I have found no observations, in any of the *learned treatises*, on the abuse of liquors. This species of amblyopia and amaurosis, and the pathognomonic symptoms, which I have atrributed to it, appear to have completely escaped the monographers on delirium tremens and the ophthalmologists.

The researches, which I have made on this occasion, have discovered only one work on this subject: Ed. Doebbelin, Dissertatio Inauguralis de Amblyopia et Amaurosis Alcoholica, Berolini, 1850, 8vo. This little work of twenty-four pages gives in detail three cases of amaurosis observed in habitual drinkers. The author does not cite any researches on this point of nosology, which seem to be unknown to him. He does not understand the pathognomonic symptoms of the complaint which I have described and never pointed out by others. In a statistical record of two hundred and sixty-two cases of amblyopia and amaurosis, treated during a year and a half at Berlin, (probably in the clinic of M. Inengken, though the author does not distinctly say so, p. 18,) and of which he himself observed a hundred and fifty-three, there were thirty-two cases of amblyopia, or alcoholic amaurosis, or the proportion of one in eight. In some of the cases the malady was accompanied by cataract, a complication which has never occurred in my practice and which, I believe, accidental.

The weight of my teachings, however little, which, for twenty-eight years, have been devoted to the amblyopia and amaurosis of drinkers, compels me to insist anew on the frequency of this malady and on the pathognomonic symptoms, which are chiefly, as I have said above, the almost constant absence of symptoms of well-pronounced cerebro-ocular congestion, and the singular vagueness in the symptoms, which as in amaurosis from tobacco waver undesirably between those of sthenic and asthenic amaurosis. It is not at random that I demand of every amblyopic or amaurotic patient, if he makes use of tobacco or liquor. All those, that have seen such cases at my clinic, will recall that only a short preliminary examination is sufficient to bring me to the questions; perhaps from the answers of the patient, from his deportment, the odor of his breath, all pointing to him as a drinker or a smoker; or it may be that this preliminary examination, brought prominently forward, (with the absence of symptoms which characterize one of the free congestive or inflammatory forms of amaurosis,) this vagueness, already described among the symptoms; circumstances which would make even an experienced practitioner hesitate before pronouncing the diagnosis.

The analogy between the symptoms of the two species of amaurosis, treated of in this paper, causes me to believe that those of the alcoholic act on the brain and the origin of the optic nerves in the same manner as tobacco and the narcotics in general; that is to say, in producing a passive, chronic congestion, slightly intense, but very persistent and obstinate, and at the same time a direct diminution of the sensibility of the organs affected, with enfeeblement and semi-paralysis of their functions. This opinion is confirmed by all that which I have said in regard to the treatment, by the equally disastrous effect of strong bleeding and of active excitants during the first period of the malady; by the advantageous action of a very moderate anti-phlogistic treatment, of derivatives, of revulsives and purgatives in the same period; of external and even internal excitants in the second stage, and in part also by the result of autopsies of habitual drinkers and persons poisoned by tobacco, and the narcotics in general; autopsies which show the sinuses of the dura-mater and the blood-vessels of the meninges more or less engorged with venous blood.

(I) GRAMME.—A drachm (English) avoirdupois is equal to 1.7712 grammes.

(II.) BALSAM OR BAUME DE FIORAVANTE.—This is the product of the distillation of many resinous or aromatic substances, such as the terebinthinates, myrrh, the resin of elm, canella, cloves, ginger, etc.

(III.) EAU DE RABEL.—A mixture of three parts alcohol of eighty-five per cent. and of one part of sulphuric acid of sixty-six per cent.

ART. II.—A CASE OF MULTIPLE EMBOLISM, INCLUDING THE RIGHT EXTERNAL ILIAC ARTERY, TERMINATING BY RECOVERY. Communicated by DR. GISBERT KIRCHGASSER, of Coblentz. Translated for the Richmond and Louisville Medical Journal, from "Virchow's Archiv." By F. C. LEBER, M.D., Louisville, Ky.

Since the beginning of March, 1867, I have had under treatment a patient, who, in the course of a muscular rheumatism, complicated with rheumatic pleuritis and endocarditis, was attacked by and effectually resisted multiple embolism. The patient manifested successively the symptoms of a plugging of the right renal artery, a complete occlusion of the right external iliac and lastly embolic disease of the brain. These disorders of circulation in the arterial system have undergone a perfect solution. The endocarditic process has led to an insufficiency in the aortic valves and this insufficiency, added to the existing obstruction of some of the larger arterial trunks, has led to a moderate degree of hypertrophy of the left ventricle. The abnormal condition in the heart, however, has as yet produced no material disorder in the circulatory system. The patient, on the contrary, enjoys at the present time, uninterrupted good health. This case, rich in interesting incidents, has gone on to a satisfactory termination, and it may be eminently proper, even at the present time, to acquaint the profession with its noteworthy features.

Teamster K——, æt. 50, tolerably corpulent and of powerful muscular development, states that previous to his present disease he has never been seriously ill, excepting occasional attacks of headache, which generally followed the imbibition of small quantities of wine. Wine he used daily and, as I was informed by his relatives, in no small quantity.

On the 4th of March, 1867, he was attacked by violent pain in the calf of his right leg, having previously suffered from slight irregular pains in various parts of the body. When I saw the patient, for the first time, he was feverish, pulse 112; thirst, tongue dry, slightly coated; the left calf, on touching, extremely painful; acid perspirations; urine saturated and of acid reaction. Prescribed phosphoric acid with aconite internally. Liniment—chloroform, externally.

March 6. The left side of the chest, commencing at the fifth rib and extending downward, is the seat of acute pain, which is increased by pressure and the respiratory motions. Tight cough, with a little mucous expectoration. Ordered morphia in small doses.

March 7. Did not sleep any during the night; friction roused in left lower pleural cavity. Respiration shallow, thirty-six inspirations per minute. Ordered larger doses of morphine, (¼ gr. every two hours,) which were followed by diminution of the pain and some hours of sleep.

March 8. Friction sound still audible; pulse 92; urine deposits a heavy sediment; very free perspiration occurred for the next four days with consentaneous improvment of the patient's condition. Frequency of pulse decreased to 84 beats per minute; complains of only slight pain in left side; respiratory movements tolerably free; no pleuritic exudate can be demonstrated.

March 10. The febrile symptoms have increased; pulse 100; the muscles of left thigh extremly painful.

March 13. The rheumatic affection of left thigh is begining to subside, but instead the muscles of the right side of thorax are affected. Ordered empl. cantharides to be applied to side, and internally, morphine in large doses. The pleuræ this time were not involved; rapid diminution of all the symptoms; in the meantime the left calf has again become painful but in a lesser degree.

March 18. Pulse 84; urine less saturated, only slight pain in the lastly affected muscles. The appetite increases. From the very moment when the rheumatic affection assumed an erratic character the heart was daily examined. The explorations each time showed normal relations. The impulse of the apex only slightly elevated the thoracic walls. No abnormal sound could be detected. To the patient's statement, therefore, that during some of his sleepless nights he experienced palpitations, no especial significance can be attributed, the less so as it never manifested itself with great violence nor for any length of time.

March 23. In the night the patient was suddenly seized with dull, pressing pains radiating from the right kidney toward the right testicle. Pressure over right renal region acutely painful. Increased sensibility manifested on pressing right testicle. The patient finds considerable relief from his sufferings by lying on his right side, bending his body forward and highly elevating his scrotum. Constant retching, with occasional vomiting of mucous masses. Temperature, as indicated by the hand, somewhat increased, not, however, excessively. Skin very moist. Pulse 120, small and somewhat hard. The urine is passed at short intervals and in small quantity; it is highly colored, clear and of acid reaction. On boiling the same a considerable amount of albumen is deposited, the flocculi of which appear of a reddish color. Microscopic examination shows a few fibrous casts with numerous blood-corpuscles. Owing to the uses of large doses of morphine, the pain over the region of the kidneys has lost its original intensity, although felt very sensibly during the next 24 hours. After a few days, the blood-corpuscles in urine disappeared, but the urine which was now passed at longer intervals contained a considerable amount ot albumen in solution. The quantity of urine passed in twenty-four hours was 1250 ccm.

March 28. Patient feels tolerably well. Sleep, appetite and bowels satisfactory. Pulse 80; full. In the afternoon the patient attempted to leave his bed for a short time, when he felt a sudden jerk in his right leg and foot, which became powerless and numb. Shortly afterwards intense pains occurred—most acutely felt in the heel. Patient calls these burning. The objective phenomena are: foot, leg and knee of right side appear cold to the touch, the right thigh possessing the same warmth as the remaining body. The skin of the leg, from the knee downward, being of a pale, that of the toes of a livid color. No pulse perceptible in the entire extremity. Not even a trace of a pulsation can be detected in the right crural artery, while the pulse in the left artery cruralis is strongly developed. The skin of the right lower extremity reacts in a slight degree only to impressions made by the sharp point of a needle. The lower half of leg and foot seems to have lost all susceptibility to mechanical impressions. Motion in ankle and knee-joint difficult. The heart's action energetic; 112 pulsations to the minute, no increase of impulse; no abnormal sounds can be heard. Prescribed morphine internally and externally friction of the painful parts with lin. chloroformi.

March 29. No change in patient's condition. Passed the night without any sleep. In spite of the large doses of morphine, the pains were unabated.

March 30. The right calf feels somewhat warmer; in other respects the patient's condition is the same as yesterday. As the previous medication had produced no effect whatever, I decided to discard the same and resort to the use of spts. camphoræ locally, which, in some cases, had proved itself to be a powerfully vivifying agent. The application was made in the following way: the right foot and leg were thickly covered by compresses previously saturated with the spirit. These were covered over by gutta-percha paper and the whole surrounded with cotton batting. At the commencement the compresses were saturated every half-hour; subsequently every hour. The action of the remedy was remarkable. Even after the lapse of a few hours, the patient stated that the pains were much more bearable, and during the next night, the patient had some hours of refreshing sleep without having previously resorted to the use of morphine. After removing the compresses it was observed that the temperature of the diseased extremity had decidedly increased. If, however, the patient remained only a short time without the use of the compresses, being only covered over by the bedding, the temperature would immediately sink to its former standard, excepting over the calf, where some degree of warmth would remain.

March 31. Two long distinct brown discolorations have appeared on the dorsum of the foot. The disordered sensibility has experienced a change in so far, that in the skin covering the lower two-thirds of the anterior tibial region, instead of there being diminished sensibility there is at present hyperæsthesia.

April 2. There is some swelling of the foot. On the the dorsum of the foot the skin is of a light red color, the redness disappearing on pressure and returning slowly when the pressure is removed. Some warmth and a slight degree of sensibility are perceptible in the part.

April 3. On the right lower extremity, about six inches above external malleolus, a dark blueish discoloration has appeared, measuring three inches in diameter which, with the neighboring parts, is insensible to thermal and mechanical impressions. The hyperæsthesia, which at the beginning only affected the portion of skin covering the lower two-thirds of the tibial region, shows itself also, though in a lesser grade, in the skin of the calf. The spts. camp. is hereafter well borne.

April 5. The dark blue discoloration has somewhat cleared up; it appears more of a reddish blue color. There is a return of warmth and sensibility on the dorsum and sole of the foot. Urine yellow, of slightly acid reaction—albuminous; pulse 84; appetite moderate; sleeps tolerably well. The pain in the leg and foot is endurable and only continuous during the evening hours.

April 6. The gangrenous spot on the lower extremity is of a rose-red color. There is an increase of sensibility in the skin covering the foot.

April 8. Patient complains of severe burning when passing his water. He passes often small quantities of acid urine, which becomes clouded by mucus on standing. The symptoms of a catarrh of the bladder, though diminishing somewhat in intensity for the next two days, remain in a moderate degree during the two following months. The gangrenous spot, above described, slowly mummified, assuming a tough, leathery appearance.

On the 18th of April, the mortified parts—a few lines in thickness—became detached, leaving a very irritable, granulating surface beneath. Cicatrization was not completed until about the middle of May.

May 15. The whole right lower extremity shows decided atrophy, with impaired motion. In attempting to let the leg hang down, the patient complains of burning pain in the heel. He describes his sensations as being similar to the contact of his foot with a red-hot iron sheet. Sensibility has almost entirely returned, only the great toe and the bulbous extremities of the other toes do not react to impressions made by the sharp point of a needle. There is hyperæsthesia of the skin along the tibia and sole of the foot. Slight œdematous swelling of foot and lower half of leg.

June 15. In the night the patient suddenly awoke with intense headache, seated in the posterior part of the head. He complains of chilliness all over the body and dizziness when attempting to assume the erect posture. What renders him most uneasy, is the phenomenon that when he wishes to perform a given coördinate movement, some other effect than that which he willed, is produced. For instance, when wishing to urinate, he attempts to seize the proper vessel, but his hands are involuntarily carried toward another vessel, standing upon the night-table, destined for a different purpose. As, however, he cannot use this vessel, and being unable to seize the proper one, he is compelled to pass his urine in bed. A similar disorder is manifest in the sphere of coördinate movements when speaking. The patient shows, namely, an absolute inability to articulate certain consonants, in the place of which others are pronounced. When he troubles himself to say "kopfschmerz" (headache), he sometimes brings forth "kottschmerz," at other times, "kockschmerz." In the place of "frieren" (freezing), he can only say "rieren." This inability of correct speech has reference, however, to a few of the labial consonants only. His mind is perfectly clear. The pupils react normally. Save the slight disturbances of sensation and motion, in the right lower extremity, there are no other symptoms of paralysis noticed. Head and extremities cold. Pulse rapid and depressed. During the physical examination of the heart a diastolic murmur is heard immediately over the aortic valves, audible also along the sternum, but nearly inaudible over the apex of the heart. Impulse not increased. The disturbances of coördination disappeared rapidly. In the course of twenty-four hours his speech became perfectly normal. The headache, which for the first few days was intense, has diminished and is accompanied by dizziness. Urine constantly albuminous and of neutral reaction.

July 27. Both feet and legs œdematous. The right lower extremity seems much atrophied when compared with the other. Muscular debility in right leg considerable. Patient drags his right leg when walking, which latter is accomplished by means of a cane. The temperature is everywhere equal. The sensibility, excepting the great toe of right foot, is normal in all parts when patient is at rest. When standing he complains of a sensation similar to the contact of a hot iron with the parts. However, after encircling the right foot and leg with a smooth bandage, producing equal pressure, the described sensation is altogether absent, only a pricking being felt during prolonged attempts at walking. In the right crural artery and its branches not even a trace of a pulsation can be detected. The cutaneous veins of the affected leg are strongly developed. The diastolic cardiac murmur still remains. Pulse 76. The digestive apparatus is in normal condition. Urine slightly albuminous. The patient's general health, though greatly improved, is variable at times, owing to the recurrence of violent headaches.

October 13. Two and a half months have past since I last saw the patient. He states that in the meantime he has suffered from occasional attacks of violent headache and has for a few mornings expectorated sputa of a bluish red color. His general health has not undergone any perceptible alteration. Upon the whole, he feels decidedly stronger than he has heretofore felt. The œdematous swelling of legs and feet has disappeared. Walking is not followed by much fatigue, though after its performance, or when standing for a long time, abnormal sensations in the right lower extremity are still perceived. The circumference of the right thigh has increased, but as yet is not of equal magnitude with the left. Indistinct pulsations are felt in the right crural artery immediately below Poupart's, ligament traceable for about one inch in a downward direction. The popliteal artery is without pulse, likewise the posterior tibial and dorsalis pedis. The cardiac impulse increased, extending to the left mamillary line. The diastolic murmur remains unchanged. Pulse jerking 76 per minute; full. The pulsation in the superficial arteries is not particularly obvious to the sight. No conspicuous symptoms are noticed in the respiratory organs. The urine indicates, in regard to quantity and quality, no deviation from the normal standard. It is noteworthy to observe that it is altogether free from albumen.

In relation to the therapeutics of the case I have to add, that the fomentations with spts. camph. used against the embolic formations were perseveringly continued for about ten weeks. The sore which was left after the exfoliation of the gangrenous skin was protected by the application of an ointment. During the latter period of the treatment, I limited myself to friction of the diseased extremity with the camphor spiritus. Internally, I prescribed quinine and iod. ferri, in small doses. Subsequently, however, I had to abstain from this course, as the patient manifested a peculiar aversion against the taking of any medicine whatever.

Thus far extend my notes in regard to this interesting case, and they afford a clear insight into the pathological changes which led to the above short history. I may be permitted to detail the sequences which were forced by the objective phenomena of the case. In the course of the erratic muscular rheumatism by which the patient was attacked in March, there was developed besides a slight pleurisy, indicated by physical signs, a slight endocarditic process which produced roughness of the aortic valves and gave rise to a deposit of inflammatory lymph upon the same. The coagulated lymph becoming detached, led to the embolic formations, of which the renal affection, the interrupted circulation in the right crural artery and the brain affection were the undoubted results. The explanation of the kidney affection appeared at first difficult. The pain manifested on pressure over the right renal region, the radiatory pains from this point towards the right scrotum, the constant desire to urinate, the presence of blood in the urine and the sympathetic vomiting, all these symptoms indicated, undoubtedly, an irritation of the right kidney, the exact nature of which could not, with certainty, be determined.

Meanwhile the opinion of infarctus of the right kidney was the most probable, especially when considered in relation to the microscopic constituents of the urine which contained only a few fibrous casts but numerous blood-corpuscles. Altogether there were no positive indications to regard the complex symptoms as denoting embololism of the renal artery, as up to this time, endocarditis could not positively be demonstrated. When the interruption to the circulation in the right crural artery occured, the case was rendered intelligible. No other alternative now remained than to refer the sudden occurrence of the symptoms observed in the right leg, the diminution of the temperature, the pallor, the anæsthesia of the skin, the spontaneous manifestation of intense pain, the debility, the absence of pulsation in the arteries of the affected limb, etc., to the lodgment of an embolus in the right crural artery. Such an embolus could only be derived, according to experience from the left heart. It was then suspected that an endocarditic process had established itself, which not infrequently, and without out giving rise to obvious symptoms, accompanies erratic rheumatism. In the meantime it must not be overlooked that the heart affection may have stood in no relation whatever to the rheumatic disease. It was undoubtedly possible that we might have here to deal with an atheromatous process. The corpulent patient was fifty years of age and had been accustomed to the liberal use of wine. The conditions, therefore, were present which might sustain such an assumption, although positive proof could not be obtained. However, the symptoms which would indicate rigidity of the arterial trunks were absent. Even the circumstance that shortly after the embolic formation in the right leg, an extended collateral circulation became established sufficient to preserve the entire leg, with the exception of the small circular spot above alluded to, showed plainly that the arteries throughout possessed a high degree of elasticity. I am of opinion, therefore, that I had a right to exclude the existence of an atheromatous affection of the heart. After having, with some positiveness, demonstrated the existence of an endocarditic process, we had gained a valuable stopping place. The kidney affection, which had preceded the occlusion of the iliac ext. dextr. could now, also, be looked upon as the result of an embolic formation. It was clear that one might have, in future, an occlusion of some one of the other vessels. Indeed, within a short period of time a cerebral affection became developed, which, taking into consideration all other circumstances, was certainly the product of an embolitic deposit. This time it appeared to be a small artery only which became involved, and when it is remembered that the most prominent symptom of the brain affection was the inability to articulate certain labial consonants, it is probable that it was one of the small arteries located in the vicinity of origin of the facial nerve. Even if it cannot be denied that the previous diagnostic conclusions possessed a high degree of probability, it must have afforded a peculiar satisfaction to prove positively, by means of physical examination the existence of a veritable endocarditis. Meanwhile a diastolic murmur became audible, having its seat immediately over the aortic valves, which demonstrated conclusively that the perfect closure of said valves was prevented by a deposit of inflammatory products. The consecutive conditions depending upon this imperfect closure soon became obvious in the heart itself and in the general vascular system. The left ventricle was hypertrophied; the blood-vessels of the lungs being congested, though only in a slight degree were the cause of the bloody expectoration. The fact must not be overlooked, that besides the insufficiency of the aortic valves, there was another factor active in the production of the cardiac hypertrophy. There can be no doubt but that the increased pressure relations in the aortic system, consequent upon the obstruction of some of the larger arterial trunks, largely contributed to produce this result. In our case, it was, therefore, impossible to decide how large a share in the production of the cardiac hypertrophy was to be attributed to the altered mechanism of the aortic valves.

Lastly, as regards the termination of the observed embolic affection, it was, in every respect, an auspicious one. The incomplete functional interruption in the right lower extremity and in the affected portion of the brain, by the arterial occlusion, permitted the assumption that an extended collateral circulation became established in the parts. The circulation, through the kidney, seems to have been completely reëstablished within a period of six months. At least it was only after this time that the urine ceased to contain any traces of albumen, a phenomenon, doubtless the result of the changed pressure relations in the vascular system of the kidney. That the diseased section of brain required a certain amount of time to regain its normal state was, I apprehend, apparent from the circumstance that, even after the invasion of the first brain symptoms, the patient was attacked at times with dizziness and irregular headaches. More definitely, as in the above mentioned organs, excluded as they were by their position from direct observation, could we observe the formation of a complete collateral circulation in the diseased extremity. A certain evidence of the degree of reëstablishment of a normal circulation was afforded by the state of the temperature, sensibility and mobility of the part. Soon after the occlusion of the external aliac artery nutritive material was introduced through the medium of the collateral channels in so large a quantity that, even a few hours after the embolic formation in the artery, some amount of normal temperature and sensibility was noted in the upper portion of the affected thigh. The upper half of the leg also recovered its functions in a few days. In the parts lower down, the development of a collateral circulation occupied a much longer period of time. Months elapsed before a more active nutrition became manifest in the foot. At the end of July, the circulation in the entire limb had become regulated in so far, that everywhere normal temperature and everywhere, excepting the bulbous extremity of the great toe, normal sensibility were present. Meanwhile the completed regulation of the circulation in the extremity mentioned, at that time, was only relative. It was sufficient as long as the leg was allowed to remain in the horizonital position, but was insufficient when the leg was permitted to hang down or when the patient assumed the erect posture. Such attempts were always accompanied by painful sensations, only to be explained

LIBRARY

upon the supposition of an interruption to the circulation in the part. Doubtless the blood-current in the affected part possessed at this time but little force, so that when lost in a dilated capillary system, from whence it past into tortuous and widened venous channels, a relative slowness of the circulation must have resulted. That an inadequate supply of blood was furnished for a time, is evident from the fact, that the affected leg became dropsical, a result which could not be attributed entirely to inactivity of the muscles, lasting, as it did, for months, for the opposite member shared the same rest without any diminution in its size. So soon as the patient began to use his limb, the already established collateral circulation assumed greater dimensions. At the time I ceased my visit the nutrition of the parts appeared to be carried on normally. It was clear that this perfect nutrition was mainly due to the strongly developed collateral vessels, probably sustained by a small stream of blood through the crural artery which may in the meantime have become partially pervious. Owing to the great rarity of this happy termination, as presented in our case of embolus of the right external iliac artery it may be permitted me to call your attention to the therapeutic means resorted to. The leg and foot were, from the second day on, subjected to the energetic action of the camphor spiritus. Compresses saturated with this liquid and wrapt around the parts were constantly kept on and moistened anew at short intervals. To prevent rapid evaporation, the compresses were covered over with gutta percha paper, and this also rendered it certain that the remedy would remain in permanent contact with the skin. I am compelled to emphasize the method indicated, as no less an authority than Gebert incidentally observes that he attributes no value whatever to fomentations with the spts. camph., or similar irritant, in the treatment of the disease under consideration. It may be possible that Gebert's experience, in regard to this point, is based upon a less energetic mode of procedure. In our case it was evident that the use of fomentations of spts. camph. was accompanied by most desirable changes in parts, where the circulation had entirely ceased. At first the leg, and shortly afterwards the foot, were rendered much warmer by the action of the remedy.

The circumstance that the temperature of the parts, after removing the compresses again sank, proves irrefutably that the increase of temperature was the result of impression made by the irritant. Neither can we regard it as a purely accidental phenomenon that, immediately after instituting the treatment decided upon, the intense neuralgic pains, for which large doses of morphine had been prescribed without effect, became greatly moderated. I have good grounds for believing that the alleviation of pain held a close relationship to the local treatment. The neuralgic pains were, undoubtedly, owing to the necessary nutritive material being withheld from the terminal ramicafitions of the crural nerves. If alleviation of the pain took place without narcotic remedies, the supposition may be entertained, that a supply of blood did reach the vital parts, and all circumstances indicate that this result was promoted by the irritant action of the remedy upon the skin of the leg and foot. If, moreover, we take into consideration that the above mentioned increase of temperature of the skin, in contact with the spts. camph., is considered intelligible, only by supposing that a free supply of nutritive material was furnished, we are entitled to the inference, that the topical treatment contributed materially to the development of a collateral circulation in the right lower extremity.

ART. III.—CARBOLIC ACID AS A REMEDIAL AGENT. By W. KEMPSTER, M.D., Utica, N. Y.

It is not my intention to speak particularly of it as a disinfectant, but rather to offer a few suggestions concerning its use a therapeutic agent.

Pure carbolic acid is a white crystalline substance, the particles adhering with considerable tenacity, and, after standing for some time, especially if the bottle be frequently opened, becomes slightly deliquescent and more tightly packed together. The two varieties of crystallized acid more generally found in the American market are prepared by Merck, of Darmstadt, and Calvert, of Manchester, England. Merck's preparation has a slight reddish tinge. Calvert's is quite white, having the appearance of snow which has been soaked in water. Merck's contains about 98 per cent. of pure acid, and is slightly more deliquescent than Calvert's, which is pure. Merck's, however, is sufficiently pure for all practical purposes, and is furnished at a lower price.

The first application of this agent, under my own observation, occurred in a case of catarrh, where the discharge was profuse, offensive and, consequently, very annoying to the patient. Various remedies had been previously tried without success. Hoping to derive advantage from its properties as a disinfectant, it was administered to the patient by inhalation, using one grain to an ounce of water, and conveying the liquid to the affected parts by means of a steam spray-producer. The effect surpassed my most sanguine expectation. It not only relieved the fœtor, but in the course of two or three inhalations changed the character of the discharge and the patient recovered rapidly.

This induced a trial in a second case, not so serious as the first, but still severe, and the result was equally satisfactory, the symptoms all disappearing in the course of four weeks. After the first few inhalations, the patients were instructed in the use of the spray-producing apparatus, furnished with a bottle of the solution (one grain to the ounce) and directed to inhale the vapor for ten minutes at a time, both morning and evening, enjoining upon them not to leave a warm atmosphere for half an hour after each inhalation.

It is used at the present time in the treatment of ozæna, nasal polypi and diseases of the nasal passages in which there is an offensive discharge. Even if it exerted no curative action, its power to correct fœtor would be a great recommendation; but this is not all, it stimulates the ulcerated surface to a healthy action, promotes normal granulation and thus assists in the curative process. This remedy is also employed by some of the physicians who are engaged in the special treatment of throat and lung diseases, particularly French practitioners, who direct that it should be inhaled in combination with other appropriate remedies. They speak highly of its efficacy in case of ulcerated sore throat, chronic bronchitis, and that morbid condition of the mucous surfaces of the air passages which gives rise to a constant expectoration of a muco-purulent material. If a solution of one grain of the acid to an ounce of water does not seem to meet the indication, the quantity may be increased to five grains, or even more, but it is better to begin with a mild solution, gradually increasing the strength until the desired effect is obtained.

My next use of the acid was in a case of scarlatina, where the breath was particularly obnoxious, owing to an ulcerated condition of the throat. A gargle of two grains of the acid to an an ounce of water relieved the fœtor at once and apparently proved beneficial. No other gargle or application to the throat was used.

It would seem to be appropriate in cases of diphtheria, a strong solution of the acid being used for a local medicament; its power to correct the foul breath would be an indication for its use, and its astringent and stimulating properties might prove beneficial. In cases of common sore throat (simple tonsillitis) it is found to answer admirably, with the advantage over the ordinary potassa gargles of relieving the "bad taste" and foul breath.

In the State Lunatic Asylum at Utica, it is successfully used to relieve cases of sluggishness of the bowels, accomcompanied by offensive breath. The dose is a drachm of a solution of one grain to the ounce (which is the house standard). A striking exemplification of the efficacy of this remedy occurred in the case of a melancholic patient admitted to this asylum. He had for a number of years suffered from attacks of dyspepsia, accompanied with acid eructations and the formation of gas. Latterly these symptoms became continuous. He complained of intense heat and a pain in the stomach; stated that the eructation of fœtid gas had become unbearable; and the same smell emanated from the cutaneous surface, so that it was offensive to every one in the room. He was at once put into a warm bath, then thoroughly washed with a solution of the acid (gr. v to the ounce). Internally two drachms of the standard solution were given three times daily for two days. At the end of this time, the breath was sweet, and no unpleasant exhalation from the skin was perceptible. He was also relieved from the painful distension produced by the formation of gas in the stomach and bowels. Whenever he feels the approach of this difficulty, two or three doses of the house preparation relieve him, at once, from this unpleasant and painful complication.

Yeasty stomach, sometimes consequent upon a meal of rich food, which produces flatulence and expulsion of gas, with a tendency to regurgitation, is usually relieved by a drachm or two of the solution above mentioned; this checks the fermentative process. The power it possesses to arrest fermentation would be an indication for its employment in sarcina, but the opportunity has not offered for me to test this. Diarrhœa, produced by eating unripe fruit or other articles which promote fermentation, is speedily relieved by combining a drachm or two of the solution with the usual remedies. As a dentifrice, commingled with myrrh or some aromatic, it removes the odor arising from carious teeth.

As a remedial agent in certain forms of skin disease it seems to possess decided advantages. A patient applied for something to relieve a disordered condition of the scalp, which had existed for some time. It proved to be a well-marked case of tinea capitis in an advanced stage. The crusts had cracked open, with a straight smooth fracture, presenting a shining floor, looking as though the scalp had opened and exposed the cranial bones. There were several of these cracks, measuring from a half inch to two inches in length, the principal ones occupying a position over the region of the anterior fontanelle and extending several inches in each direction. Other crusts had formed over the temporal and occipital regions. In order that the acid might be effectually tried, the hair was cut short and the entire scalp washed with a solution of the acid (two grains to the ounce) four times daily. The subsidence of the disease was marked; those crusts in process of formation were checked and the dry grayish crusts already formed, with those cracked open, were speedily removed. After the wash had been continued for one week, a glycerolate of carbolic acid (strength five grains to the ounce) was applied, which possesses the advantage of being a more permanent preparation. The treatment was commenced January 7th, and at the date of writing (January 28th) the disease has disappeared. No other treatment, either internal or local, was employed. One other case has been mentioned to me, which was even more severe than this, and in which various modes of treatment had been employed without arresting its progress. The treatment mentioned above was resorted to, with an immediate abatement of symptoms and rapid recovery. We have used the glycerolate mentioned in cases of herpes circinatus, with entire satisfaction.

During the month of December, 1867, I was called to see a girl aged four years, who had been taken suddenly ill. The symptoms indicated scarlatina, and, as there were a number of cases in the neighborhood, that diagnosis was made. She was immediately put upon milk-punch and carbolic acid solution, the one-sixteenth of a grain three times daily. I also directed that her face should be washed in water containing a spoonful of the solution (one grain to the ounce) and that the mouth should be sponged out with the same—directing also the use of the commercial acid solution about the house as a disinfectant. At the end of four days the internal administration was discontinued; not because of any unpleasant symptoms, but its continuance did not appear necessary. The mouth-wash, of which the child swallowed a few drops, and all the other applications, were continued; the body being anointed with olive oil, tinctured with carbolic acid. From first to last no untoward symptom appeared; the fever subsided on the fifth day. The throat was not very sore; the tongue was relieved of the creamy coat after the third day; there was no offensive breath and the child made a complete recovery. No other treatment was employed. A brother of this child, two years older, who never contracted the disease, and who was with her constantly, had no symptoms of the disorder. His face was washed twice daily in the solution above mentioned.

The medical superintendent of this asylum, Dr. John P. Gray, informs me that in a family of six children, three were simultaneously attacked with scarlatina anginosa. They were put upon a course of treatment similar to the above, the house being thoroughly disinfected. and made a good recovery.

Dr. Gray has spoken to me of a case (sequel to scarlatina anginosa) in which there occurred a very fœtid discharge of ichorous pus from the ears and nostrils of the patient. A mild solution of the acid (two grains to the ounce of water) was thrown into the nares and auditorius externus, with the effect of arresting the sanious discharge and causing its disappearance.

Dr. Bissell states that he has used a solution of carbolic acid—strength two grains to the ounce, the dose being one drachm—as a vermifuge, and has not been disappointed with the remedy. The *oxyuris vermicularis* (pin worm) may be at once destroyed by using as an injection a drachm of the solution to four ounces of water.

Though it was not my intention to speak of this agent as a disinfectant, as it concerns the sick-room directly, yet some remarks may not be inappropriate. Nearly every practitioner has experienced the unpleasant odor emanating from the lying-in room. This may be entirely overcome by the proper use of the solution of commercial acid—a half ounce of which, put into a gallon of boiling water, makes a strong solution—all, indeed, that the water will take up—which, if filtered to remove oily matters, may be thrown about the floor with impunity. Two tablespoonsful at a time are sufficient to disinfect and deodorize a large room, and one-half the quantity is generally sufficient. A few drops sprinkled upon the the napkins, and applied to the genitalia externa, will remove the unpleasant, pungent odor which accompanies the lochial discharge, thus exempting the patient from a great source of discomfort. A small quantity of the solution put into the close stool before use, destroys the odor which would otherwise occur. Whenever it has been introduced with these objects in view, it has received the unqualified approval of those most interested.

Carbolic acid at once arrests the development of the lower forms of organic life. It stops the fermentation of yeast, kills microscopic infusoria and cheese mites. Nor does its influence end here. In order to test its destructive power over insect and animal life, I procured a cricket, smeared the inside of a wine-glass with the commercial carbolic acid, and inverted it over the cricket, leaving sufficient space at the bottom to allow a supply of air. Immediately after the glass was inverted, the cricket made violent attempts to escape, lasting two or three minutes. It then staggered about and fell over, had a few severe convulsions, and died. A cockroach was next tried, with the same result; it was from ten to fifteen minutes in the vapor.

A mouse was procured, and put into a wide-mouthed, four-quart bottle. A piece of sponge saturated with two drachms of commercial acid was lowered into the bottle and suspended about two inches from the bottom. Five minutes after the introduction of the sponge, the mouse staggered as if intoxicated, the movements continuing for fifteen minutes, when a short respite occurred. These paroxysms were repeated several times during one hour and a half, then the animal became violently convulsed, the spasmodic action lasting thirty minutes, when it died. Upon examination it was found that the membranes covering the brain and spinal cord were injected, some of the vessels being very large. The lungs were of a slight pink color, many shades above that observed in the normal human lung: they were collapsed. The heart appeared large, and felt hard; upon opening the organ it was found distended with very dark clots, which bulged out as the incision was made.

A full-grown rat was next subjected to the vapor of carbolic acid, and its manifestations were more strongly marked in this than in the former experiments. The animal was a vicious one, exhibiting great ferocity; but in less than one minute after the sponge containing the acid had been introduced, the animal appeared sleepy, and as if intoxicated. Twice the animal reared upon its haunches, as if it desired to climb, but had not the strength to do so, and after each attempt, it fell upon its right side. At the end of forty-five minutes a tremor was observable over the entire body, and it ceased to notice sudden sounds; shortly after this it failed to perceive that it was being handled, and presented all the phenomena of profound anæsthesia. Convulsions followed the tremulousness, which continued to increase in violence until the animal's death, which occurred in one hour and forty-five minutes after the introduction of the sponge. The vessels of the pia mater were found congested, some of them being very much distended. The larger lobes of the brain (cerebrum) presented a greater number of bleeding points than is usually found; the smaller lobes (cerebellum) were highly congested—the vessels being considerably increased in size. The spinal cord appeared exsanguinated in all but the cervical region, which presented a uniform pink blush. The lungs were collapsed and several shades lighter in color than usual. The heart was tense; and, on being opened, a clot bulged out which filled both left auricle and ventricle.

The same experiment has been performed twice since, the result being alike in each case: in the last instance, the convulsions occurred at the end of eighteen minutes; they were more violent in character, and death occurred sooner (fifty minutes.)

A peculiarity was noticed in connection with the convulsive movements of both insects and animals—which was, that the forward legs were first convulsed, the spasm ceasing to a great extent in them, as the posterior members became affected; and also that, as the spasm commenced, the animal fell over upon the right side.—[*Canada Medical Journal.*

ANALYTICAL DEPARTMENT.

"Qui e nuce nucleum esse vult, frangit nucem."—PLAUTUS.

ART. I.—ANALYSIS OF VARIOUS ARTICLES. Published in the last Medical Times and Gazette, and the British Medical Journal and London Lancet, (original copies). By Prof. JAMES M. HOLLOWAY, M.D., Associate Editor.

Dr. Robert Smith, M. R. C. S., reports the successful treatment of a number of cases of severe neuralgia, including tic douloureux, within the last fifteen years by the application of *tr. aconite* upon a blistered surface.

After the cuticle has been removed, the patient is laid in such a way that drop after drop may fall upon the blistered surface and gradually diffuse itself.

Three applications, of fifteen drops each, at intervals of twelve hours, have been sufficient to cure cases of long standing, while usually, one application is sufficient.

Dr. Day, of Geelong, had been very successful in the treatment of *diabetes* by the employment of an ethereal solution of peroxide of hydrogen. He gives it two or three times daily, in doses of from a half drachm to two drachms in a wineglass of water. Under its influence the great thirst, frequent micturition and the large flow of saccharine urine ceases.

Mr. Bayfield, and other medical gentlemen, confirm the observation of Dr. Day.

W. St. John Coleman, in a letter to the Lancet, October 31, proposes to contribute a paper, illustrated by cases, to show the value of chlorine in the prevention and treatment of scarlatina. He recommends the use of the chlorine mixture, prepared by Watson's formula (see Watson's and Flint's works on practice.)

[NOTE.—Having employed this remedy in quite a number of severe cases, I can bear full testimony to its great value.—H.]

Mr. John D. Hill, at the Royal Free Hospital, has treated successfully four cases of simple ganglia of the wrist by emptying the cyst and applying modified pressure. The pressure was accomplished with sheet lead and wash leather applied over the ganglion and retained by silken cords drawn tightly over a splint of gutta percha that covered the palmar aspect of the wrist. The treatment did not interfere with moderate use of the arm.

Mr. Hill, at the same hospital, has also recently cured a severe case of prolapsus ani, by the following operation: "He dissected out three triangular pieces of integument, making the base of the triangle correspond with the margin of the mucus membrane of the anus. The portions of tissue removed were situated, one on either side and one in front between the vagina and anus. Sutures were applied and the wounds healed by the first intention."

A correspondent of the Times and Gazette, upon the authority of Dr. H. E. Purdon, of Belfast, and Dr. Thorowgood, and also from personal experience, recommends the hypophosphites of soda and lime for the cure of eczema, especially in children, when arising from malassimilation.

Mr. C. F. Maunder, surgeon to the London Hospital, attaches great value to the antiseptic ligature of arteries, as recommended by Prof. Lister. In one instance he tied the carotid with a silk ligature saturated with carbolic acid. After cutting off the ends he left the ligature in the wound. The parts healed and the silk thread remained without producing irritation. Mr. M. believes that the "antiseptic ligature of arteries will greatly diminish the risk of secondary hæmorrhage."

Dr. Wilks, at Guy's Hospital, treated, in September last, a case of pneumonia, the right lung being involved in the second and third stage, with venesection, and pills composed of calomel, antimony and opium. The patient, a female, aged 18, small, but robust, was suffering with dyspnœa-pleuritic stitch and was raising rusty sputa. She was much better on the third day and convalesced rapidly.

Dr. Wilks took occasion to remark that he "believed firmly that he had seen venesection save life in pneumonia, bronchitis, heart disease, apoplexy or epilepsy." Bloodletting in pneumonia was not often practiced by him, because the opportunities were small for treating the disease at the onset of the attack.

Dr. Weigershetm recommends, before the Berlin Medical Society, the employment of minute doses of ipecac, with the advantage to the physician of being able to regulate the amount of vomiting that shall occur. He triturates three grains of ipecac with one or two drachms of sugar, divides into twelve powders and gives one in a spoonful of water every five minutes until vomiting is produced. No drinks are allowed, and usually the desired effects are obtained after the third or fourth powder.

At the University College Hospital, in the latter part of September, Mr. Erichsen and Mr. Berkeley Hill had the opportunity of testing, in two cases, the combined use of the three important recent modifications in surgical practice, viz: torsion, by the artery forceps, caustic and antiseptic lotions.

After the removal of two diseased breasts, every minute bleeding orifice was closed by torsion, the wounds were washed with chloride of zinc, and, after the flaps were brought together, strips of linen steeped in carbolic acid and oil were carefully applied. The linen strip next to the healing surface was allowed to remain permanently, while the superjacent layers were renewed daily. The surgeons of this Hospital are well pleased with the results of the modifications, having found that, since their adoption, pyæmia, which was formerly of frequent occurrence, has now entirely disappeared.

Mr. Rouse, at St. George's Hospital, finds the proportion of one part of carbolic acid to forty of water too strong as an application to chronic ulcers of the leg. As a substitute, he employs two drachms of carbolic acid to a pint of lead lotion, with the effect of destroying all odor and stimulating the indolent granulations.

For chronic eczema, where there is not much inflams mation, he uses a drachm of carbolic acid, two drachm- of lead lotion, one ounce of glycerine and eight ounces of water. "This stops the itching and smarting in a remarkable degree."

Mr. Henry Lee, surgeon to St. George's Hospital, reports twenty-two cases of excision of the larger joints, with only two deaths. He attributes his success, first, to the fact that a majority of the patients were children and the excisions of the ends of the bones were made before the epiphyses were united to the shafts of the bones, and, second, to the fact that, in those who were adults, the ends of the bones had become consolidated by previous inflammation.

In the two fatal cases there was diffuse suppuration in the surrounding soft parts and purulent infiltration of the shafts.

M. Herard, of the Academy of Medicine of Paris, reports favorably upon arsenic in certain forms of tubercular phthisis. He and M. Moutard-Martin prefer the arsenious acid in pills or granules, gradually increasing the dose, and occasionally suspending the treatment for a few days.

Benj. Ball, M.D., reports, in the Times and Gazette, three cases of locomotor ataxia, in which disease one or more large joints were affected with arthritis.

In one of the cases, dying from other causes, the bones composing the left shoulder-joint were carious and the cartilages were destroyed.

Heretofore, such a complication has been mistaken for the effects of rheumatism; but he considers it a true *spinal arthritis.*

Eggs are preserved on a large scale in Paris by plunging into a cauldron of boiling water a colander containing one dozen and allowing them to remain for one minute. This immersion coagulates a thin layer of albumen on the surface and the admission of air is thereby prevented.

Dr. N. U. McVoy, of Sierra Leone, West Africa, writes through the Times and Gazette, to Sir Arthur E. Kennedy, Governor General, of the beneficial effects of carbolic acid: "first, as a deodorizer and disinfectant; 2d, an antiseptic dressing for wounds and foul, sloughing and phagedænic ulcers; 3d, as a stimulating dressing for weak or unhealthy sores."

He uses it in the form of a liquid and powder for the urinals and water closets and upon the floors of the wards and in the dead house. He claims that it diminishes the secretion of pus from suppurating wounds.

The Medical Times and Gazette does not admit the fact "that seems now to be admitted on all hands," that eczema has resulted from the use of colored socks. In spite of the testimony of Mr. Webber, the editor is disposed to accept the opinion of Mr. Crookes, F.R.S., to the effect that the dye does not contain arsenic and at the same time suggèsts that Mr. C.'s "somewhat brilliant and fast orange dye" is a mysterious entity.

He says further that "in our last week's journal a case is reported in which the wearing of well-washed socks (after the abandonment of the colors) was followed by a return of the eczema.

Dr. Hawksley, the consistent advocate of the *dry earth* system of disinfection, has written a triumphant letter to the Times, in which he says: "Its impracticability will be found, on trial, like Columbus' egg, or the quiet chuckle over Lardner's *dicta* concerning steam navigation in America," no impracticability.

[The dry earth system is well adapted to densely populated districts which have not already been supplied with the general water system of sewerage. There are corners in every city and in many villages, that could be rendered more salubrious by a general adoption of the dry earth system.—H.]

Mr. John D. Hill, of the Royal Free Hospital, has recently removed a large invaginated sequestrum from the femur of a man, aged 23, of strumous diathesis, who had submitted to amputation two years before. Upon exploration, he found a cap of new bone covering the sequestrum, two small cloacæ admitting the probe.

[Experience in military surgery shows that it is safer to the patient to allow the sequestrum to become fully detached, before any attempt is made to remove it. When a secondary amputation of the end of the bone is resorted to, for the relief of caries, or the removal of an incomplete necrosis, the patient will most likely succumb from increased drainage of pus, or from some of the numerous complications of such injuries.—H.]

Prof. Lionel S. Beale, F. R. S., physician to King's College Hospital, in an introductory address to the medical class, asserts that while many of the greatest surgeons and physicians have been remarkable for their devotion to this branch of medical science, nevertheless, the importance of physiology to medicine, is still very much underrated.

He says further, that "anatomy, chemistry and physiology are subjects with which every one should be acquainted *before* he commences the study of medicine and surgery;" and further still, that "it is obviously impossible that any one can really learn anything at the bedside until he has acquired such preliminary elementary knowledge."

Mr. Henry Lee, in a paper read before the Medical Society of London, Nov. 2, thus describes his method of performing the medio-lateral operation of lithotomy: "The patient is placed in the ordinary position for lithotomy, and, a grooved staff having been introduced, an incision is then made in the median line of the perineum from before backward. This incision should extend through the posterior half of the perineum, terminating two or three lines in front of the anus. From this point the incision is continued for the quarter of a circle round the front and left side of the rectum. The finger of the left hand may then be put into the wound and the rectum pressed back, whilst an additional touch or two with the knife separates it still further from the parts in front. The forefinger of the left hand is now passed into the rectum, and the knife, with its back toward the bowel, is passed at the posterior part of the central incision, and in the median line, into the membranous portion of the urethra. With the finger as a guide, this is done with great ease and certainty. A bistoury or knife, with a probe at its extremity, is then passed into the bladder. The blade of the knife is then directed toward the patient's left side and somewhat backward, and, as it is withdrawn, the heel of the knife passes in the direction of the original incision through the skin. The point of the knife remains very nearly in the median line. A free external incision is thus produced, involving no important parts, with a small opening into the bladder. The urethra being opened, the median line is reached with the greatest facility with the finger and the incision into the bladder is in the same way very easily dilated. The forceps, or any other instruments that may be used, are also introduced more directly into the bladder, than in the ordinary lateral operation. In this operation, all the usual accidents and difficulties which are likely to occur in lithotomy are guarded against. With the finger in the rectum as a guide, the urethra may be opened without difficulty and a probe-pointed bistomy, being guided by a grooved staff, cannot fail to enter the bladder. The incision into the prostate gland is made from within outward and this he (Mr. Lee) considered an advantage. An incision made in the opposite direction partakes more or less of the nature of a stab, and the point of the knife, even when guided by the most skillful hand, will sometimes wander from the groove in the staff."

CLINICAL RECORDS.

'Ex Principiis, nascitur probabilitas: ex factis, vero veritas."

ART. I.—JOINED TWINS; THE OBSTETRIC AND SURGICAL MANAGEMENT, WITH REMARKS. By A. B. COOK, A.M., M.D., Professor of the Principles and Practice of Surgery, Kentucky School of Medicine, Louisville, Ky.

In the human organism, a monstrosity—something out of the common order of nature—has, in all ages, been of frequent occurrence. We would exclude from this general definition, abnormal developments, such as club-foot, supernumerary toes and fingers, cleft-palate, &c., and limit the term to the complex anomalies of conformation. In the days of mythology, monstrous births were regarded as omens ot evil, the displeasure of God or the work of the evil spirit. The laws of ancient Greece and Rome required them to be put to death; even as late as the seventeenth century, they were either killed or secluded from sight, and in this century, in some countries, they were confined in certain limits. Happily for this unfortunate class of beings, with the light of science—the guiding and unerring star of hope—a brighter day dawned. In this enlightened century, they are by the general public, gazed upon only as curiosities; pandering to a morbid taste to see the irremediable deformities of a fellow-being. To the lover of medical science, whose mission now is: First, to acquaint himself with the structure of the human body and the sciences based thereon; next, to know when to interfere with and when to let nature have her course; they present a study of peculiar interest in the departments of anatomy, physiology, pathology, obstetrics and surgery.

Three theories have been advanced to account for the cause of double monster, which Vorlick states as follows:*

First. The double monster is supposed to have proceeded from two distinct embryos, which have become united in the course of development.

Second. It has been thought to originate in a single germ, which has become double, or has become subdivided.

Third. The germ has been regarded as abnormally compound from the beginning, implying that the organs and parts composing the double monster are at once produced from this germ, without either separation or coalition of its parts, other than belongs to the natural process of development.

Of these theories, it would appear to the writer, that the third is the most natural and rational—that double

---

*Obstetrical Transactions, Vol. II.

monsters are *ab ovo*—developed from an original double germ. The first is discarded from the fact that double-yolked eggs, when brought to incubation, as was done by Prof. Allan Thompson, M.D., never produced joined twins. Nor would this mode of production account for one or more of the vital organs being common to the two, while all the other organs are duplicated. The second theory predicated on the division of a single germ, appears untenable, although Prof. Thompson demonstrated such a division in the egg of a goose after five days' incubation, which condition, if developed, would produce two united living creatures; but we have no record to show that any segmentary division of a primitive single germ ever matured. The law might apply to some of the lower orders of animal life in which, if a part be removed from a matured body, an exact analogue will be reproduced.

This segregation does not pertain to mammals; it is true, the latter are, the viscera excepted, originally developed in two lateral symmetrical halves, which ultimately unite to form the perfect being, but it seems entirely incredible, that the lateral halves of an originally single germ should, by mere excessive growth, develop two perfect individuals, joined only by some part of the osseous structure or soft tissue, when there is no power to reproduce a limb or an organ that has been removed by accident or disease. A legitimate reasoning from this hypothesis would lead us to expect ordinary, separate, perfectly formed twins, from a primary division of the nascent germ; for if the division could produce two united, there is no reason why an entire separation would not develop two separate fœtuses, whether there existed either one or two umbilical cords. Were such a division the result merely of accident or excess of growth, we would, out of the great family of mammals, see more frequent departures from nature's common laws, whereas this compound class or type are exceedingly rare in comparison with the aggregate number of births.

The limits of this article will not permit a relation of the minute classifications of monstrosities. It will be sufficient for our purpose to state, that the following case belongs to that *tribe* of compound monsters, which Geoffroy St. Hilaire calls *autositaires*—two individuals equally developed and having life in common. This tribe represents two varieties, *first*, where the umbilicus is double; the union being effected at any portion of the trunk or head. To this class belong the black twin sisters of North Carolina, now living; the celebrated Hungarian sisters, who died at the age of twenty-two, and a few similar pairs; each pair being united by a lower part of the spine or sacrum.

The *second* variety, representing those having one single or common umbilicus, are united by the soft parts of some portion of the abdominal or thoracic walls, or both.

This latter mode of union is by far the most frequent and hence of greater professional interest, which is my apology for adding one more to the list already recorded

For the privilege of presenting to the profession this interesting case of joined twins, I am indebted to my friend, Dr. E. C. Bright, of Eminence, Ky., who was kind enough to present them to me in the spring of 1865. The Doctor informs me he was called to see the mother, a mulatto, aged twenty-eight years, in this, her third confinement, March 29th, 1865. The labor commenced about 7 o'clock P. M., and terminated about 12 o'clock, midnight; the entire labor embracing but five hours. The mother had no unusual symptoms, and was not unnaturally large during the pregnancy. The children were living when labor commenced, but died before delivery was accomplished. He first saw the patient about 8 o'clock P. M.; the head of the presenting fœtus occupied the first position, and was, in a few minutes, delivered; it respired two or three times, when life ceased. No further progress being made, as is usual, at this stage, he made a thorough examination, and detected the presence of twins. Still failing to effect further delivery, he called Dr. D. N. Porter, of Eminence, in council. By this time the uterine contractions had forced down the head and shoulders, sufficient to detect, by a digital examination, the existence of a connecting band. Traction, with forceps, was then made on the head of the present ing fœtus, which force, with other manipulations, brought down the nates and feet; the time occupied about one hour. The second fœtus, head also presenting in the first position, was delivered soon after without any manual aid. The single placenta, larger than common and having but a single umbilical cord, was removed at the usual time, and the mother rapidly convalesced without any after treatment. I have been unable to ascertain whether the mother has borne any children since. Dr. B. injected them, through the common carotid arteries, with a solution of the chloride of zinc and had a photograph taken, of which, plate No. 1, is an exact copy. Since they came in my possession, I have kept them in a solution of the same material. At present they are well preserved, without offensive odor, and all the tissues, organs and muscles are dissected with facility. Previous to making any dissections, a solid injection was thrown into the vessels through the common umbilical vein and common carotid arteries by Geo. J. Cook, M.D.

The twins were born at full time, sex male, general physique, except at the bond of union, perfect, height of each nineteen inches; conjoined weight, 48 hours after birth, 13 pounds.* The connecting band extends from the zyphoid cartilages downwards to a point where the natural umbilicus should be; the skin is continuous on each surface with the corresponding abdominal walls, natural in appearance and without any trace of a median line or raphe between them. The band measures in its vertical diameter 4 inches; transverse at the sternal border 1½ inches, at the umbilical border 2 inches; thickness through the lower half ¼ of an inch, upper half 1 inch. There is but one common umbilical cord, which enters at the centre of the inferior border of the band, thus forming one single umbilicus for two beings; it is natural in size and appearance, and is composed of one common umbilical vein and four hypogastric arteries with the usual envelopes.

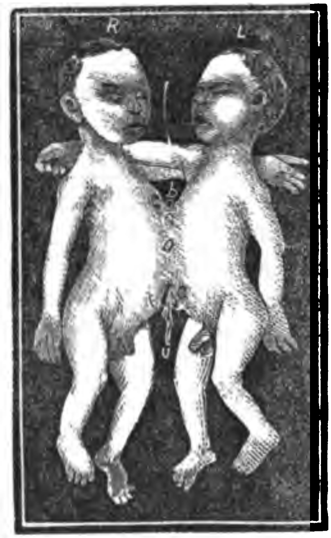


*Plate No. 1.—Anterior view from a photograph, as they appeared after birth. R and L. Right and left fœtus. a', connecting band. b, superior or sternal margin. I, inferior or umbilical margin. U. common umbilical cord, entering the centre of the lower margin at the common umbilicus C.

Dissection. A vertical incision was made in the mesian plane of the band, and transverse incisons at each border, dividing the skin and superficial fascia. The flaps being reflected, the zyphoid cartilages were found to connect in the centre, forming a section of an inverted arch between the twins, one half an inch in width and one line in thickness. A common linea alba, formed by the tendons right and left alternately of the broad abdominal muscles, extended from the junction of the cartilages down to the point at which the umbilical cord entered; here it bifurcated, one branch extending to the symphysis pubis of each fœtus. A linea alba similarly formed connected the left and right abdominal muscles in the posterior wall of the band. The recti muscles were next exposed, by dividing and reflecting the aponeuroses forming their sheath. Each rectus muscle had two lineæ transversæ, and was perfect, except being a little longer than usual. A triangular flap, embracing the remaining fascia and peritoneum, was then reflected down, which exposed a common cavity, three inches in its vertical diameter. The peritoneum formed one great continuous sac, which accommodated itself to the separate abdominal walls and viscera of each fœtus, and a single liver common to both.* This viscus occupies an anomalous position; the greater part of the organ is suspended across the upper half of the cavity in the connecting band, the extremities terminating in the right hypo-chondrium of each fœtus. Its vertical diameter in the centre or mesian plane is one and a half inches; transverse diameter four inches, and thickness through the middle three fourths of an inch. It has two borders, two extremities and two surfaces. The posterior border is rounded, thick, slightly concave and attached to the under surface of the common diaphragm by one continuous reflexion of the peritoneum. The anterior border is sharp, irregular and pointed or nodulated at the centre of the band. The ends terminate in tongue-

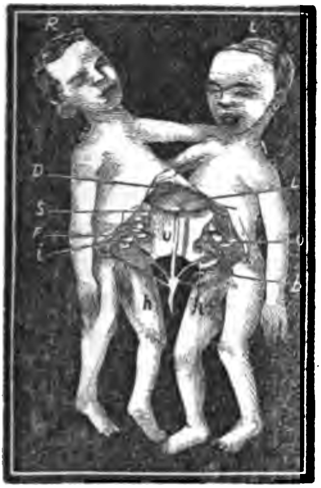


*Plate No. 2—Represents the common abdominal walls, divided and reflected to show the position of the superficial viscera; F F, the flaps, L, common liver; u, umbilical vein; i, small intestines; S, right stomach inflated; o, part of left great omentum and colon inflated; D, diaphragm; h h, the two hypogastric arteries of each fœtus; h, left bladder and the urachus projecting from its apex.

like processes, each one occupying the position of the great lobe of the liver in the natural order of development. The right end, measured from the median line, is longer and more slender than the left; but about one half of the cubic dimensions of the organ lie on each side of this line. The upper surface is free, smooth and covered with peritoneum. The under surface is irregular; in the mesian plane is a central depression or fissure occupied by the common umbilical vein, which is attached to the liver by a reflection of the peritoneum that represents the suspensory ligament. On either side are irregular elevations which may be termed the analogues of the quadrilateral lobes. External to these on each side is a fissure occupied by the gall bladder.* Further removed from the central line, we have reflected from the under-surface two gastro-hepatic omenta which connect with the small curvatures of the two stomachs. Between the folds of the omenta, we find, for each fœtus, the usual vessels, viz: vena-porta, hepatic artery, hepatic duct, nerves and lymphatics, entering into or emerging from

---

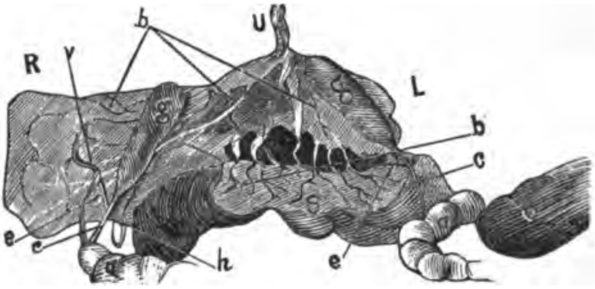


*Plate No. 3—Represents the liver reflected upwards to show the under-surface, with sections exhibiting the principle branches and common distribution of the umbilical vein. R, right, L, left extremity; S, section showing branches of the umbilical vein; b b, divisions of the vein springing from the common trunk U; g g, the gall bladders; e e, hepatic ducts joining the cystic ducts to form c c, the ductus communis choledichus of each side; d d, vertical portion of the duodenums showing the terminus of the biliary ducts; v, the vena portæ of the right ride entering the portal fissure; h, hepatic artery of right side; O, the stomach of the left fœtus inflated.

imperfectly developed fissures. In the left fœtus, the ascending cava passes the under-surface near its narrow terminus, (plate 1) where it is joined by the ductus venosus and hepatic veins. In the right fœtus, the ascending cava makes a curve from the right to the left of the vertebral column (plate 4) and is joined by the ductus venosus and hepatic veins as it passes the posterior border to perforate the diaphragm on the left of the spine and connect with the right auricle. The parenchymatous structure is analogous to other livers, with this difference: that in this common organ we find no trace of any septum denoting an original development in two parts, and we have two sets of hepatic vessels having a promiscuous distribution from which common reservoir they distribute to two distinct individuals. In utero they were supplied with maternal blood through one common channel, the umbilical vein; and nourished and developed from one common source, the placental blood, which flowed through one common organ before general distribution. We have, in this abnormal development, an irregular substance suspended in the septum, carrying the life-blood of two human beings. It is covered by peritoneum; the vertical line of its under-surface is occupied by the trunk of the umbilical vein; on either side two gall bladders, two cystic ducts, two hepatic ducts; further removed from the common mesian plane, and nigher the centre of the under-surface, two shallow fissures, each giving exit to biliary ducts and deep lymphatics distributed to two separate alimentary canals and thoracic ducts, each transmitting a hepatic artery, vena portæ and hepatic nerves to nourish, support and feed a chemical laboratory, which distributes alike its invigorating or baneful fluids to two living beings. In the interior we find, first, the distribution of the umbilical vein represented in plate No. 3 at u and b b; second, we find in the lobules the terminal capillaries of the hepatic arteries, hepatic ducts, lymphatics and nervous twigs, and the commencing radicles of the hepatic veins, which are ultimately developed into two hepatic systems, each of which converges toward and connects with the respective inferior cavas as seen in plate No. 4 at h h, t t, N and O.*

The office of this liver might be compared to that of a filter, placed in a recess common to two households, and from either extremity pouring out to the occupants a constant stream of pure invigorating fluid or distributing the germs of sickness and death.

The anatomical peculiarities are briefly summed up as follows: 1. The junction of the zyphoid cartilages; 2, two linea albas; 3, one common diaphragm; 4, one common peritoneum lining a common cavity and two sets of

---

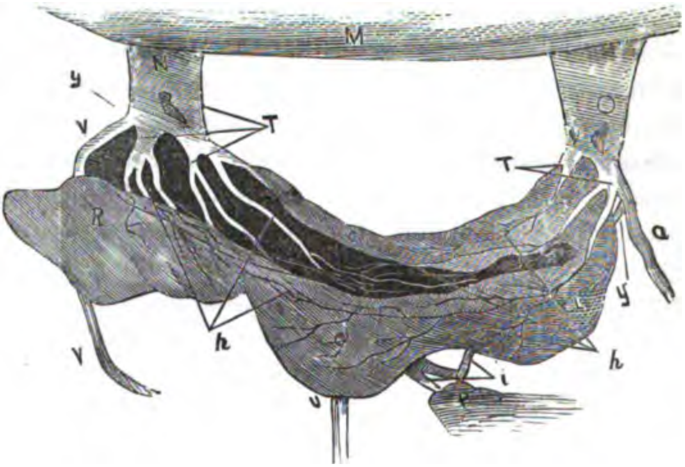
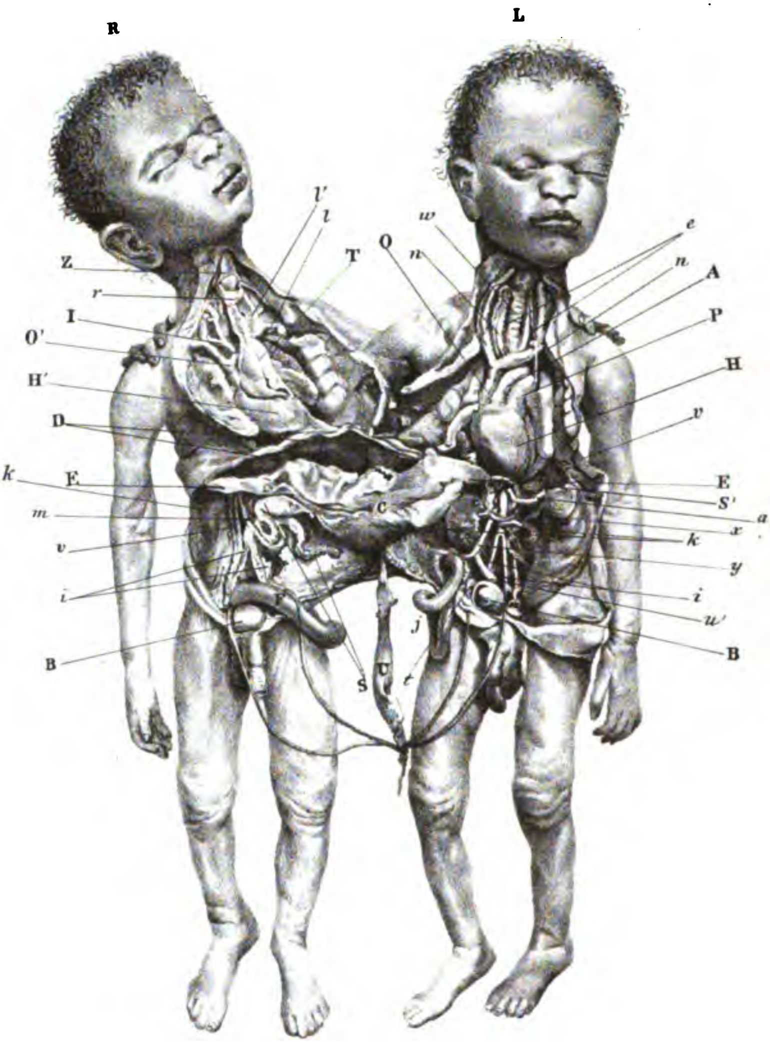


*PLATE NO. 4.—Upper surface of the liver showing the common distribution of two distinct hepatic veins; R, right, L, left and, c c, centre of the upper surface; h h, branches of the hepatic veins converging and coalescing toward either extremity; t t, trunks of the hepatic veins; v, right vena cava ascendens; N, the common venous trunk of the right fœtus; a, left vena cava ascendens uniting with the left hepatic veins to form the common trunk O; s, small section of liver detached to show hepatic veins at i; u, umbilical vein; y y, ductus venosus of each side; M, common diaphragm showing the openings for the cavas N and O.



Hart & Mapother Lith. from Photograph by Klauber & Campbell Louisville, Ky viscera, with one exception; 5, one common umbilical vein; 6, one liver, with a double circulation; 7, the curve of the inferior cava of the right fœtus to the left side of the vertebral column; 8, the radical change in the relations of the vena cavas, hepatic veins and venous ducts to the posterior border of the liver; 9, the duplication of all the organs (liver excepted) as represented in plate 5.*

The physiological questions may be very briefly considered in two relations: first, through the common liver and, second, through the connecting soft tissues. In the liver terminate the peripheral extremities of a portion of the two great nervous systems; the cerebro-spinal axes; connecting its animal sympathies with the cerebrums through some filaments derived from the pneumogastric and right phrenic nerves. The ganglionic systems connecting intimately and inseparably, the organic functions through the hepatic plexuses derived from the solar plexuses of two beings. We have in the nerves, a union of sympathy and organic function. The complicated structure of the organ fits it for its great function, the distillation of the bile, a constant secretion in greater or less quantities; and constantly delivered from this common source to two digestive apparatuses.

---

*PLATE No. 5.—R, right, L, left fœtus; C, common liver; E E, right and left extremities of the liver; U, umbilical vein; D, common diaphragm; S, stomach and duodenum; v v, inferior or ascending venæ cavæ; m, superior mesenteric vein entering the under-surface of the right extremity of the liver; S′, spleen; a, splenic artery; x, splenic vein; y, superior mesenteric artery distributed to a portion of jejunum j; k k, kidneys, the right kidney of the left fœtus having the capsule removed to show the lobulated structure, renal artery and vein, and the left kidney surmounted by the supra renal capsule; i i, common iliac arteries diverging from abdominal aortas, also showing the four hypogastric arteries tied to the end of the cord U; u′, ureters of the left fœtus; B B, the bladders, showing in each the urachus projecting from the apex; t, gubernaculum testis; F, sigmoid flexure of the colon inflated and turned back; H, heart of the left fœtus, on either side of which the lungs are seen; P, pulmonary artery; A, aorta with ductus arteriosus concealed; O, superior or descending cava formed by the union of the right and left venæ innominatæ seen above; they again each formed above by the internal jugular and subclavian veins; e, common carotid arteries of the left fœtus; n n, right and left pneumogastric nerves; w, trachea; H′, heart of the right fœtus enveloped in its pericardium, the latter attached to the diaphragm; the lungs are shown on either side; O′, superior or descending cava of the right fœtus, formed by the junction of the brachio-cephalic veins; I, arteria innominata dividing into the right common carotid and subclavian arteries; l, left subclavian vein; l′, left internal jugular vein; T, thymus gland; r, thyroid body; z, larynx.

This fluid, complex in its chemical composition, is not a mere excretion as some maintain; but it is a necessity to nutrition and life, as proved by experiments on dogs in which death soon followed the absence of bile in the intestinal canal. Two lymphatic systems also act their part in the hidden mysteries which govern the laws of health. In short, this single organ performs all the important physiological functions connected with the liver for two individuals.

The physiological union through the soft tissues of the connecting band are of minor importance, being limited to the capillary inosculations of the sanguineous and lymphatic systems, and the intermingling of the sensor and motor nerves for a short distance on either side of median line. The healthy relations of the two then are common, derived from the same fountain head and disturbed by the same causes.

In their pathological relations any symptomatic, disease of the liver, whether functional or organic, would necessarily affect both alike. Functional disorders of any of the duplicated organs, as the brain, lungs, heart, etc., of one would not disturb necessarily the health of the other twin. Local inflammations in one, as pneumonia, nephritis, dysentery, &c., would not be developed in the corresponding organs of the other, but he would only suffer from the symptomatic fever communicated through the circulation. Idiopathic disease, as typhoid fever, and zymotic disease, as small-pox, rubeola, poison, &c., would affect both simultaneously through the vascular and lymphatic connections. The administration of all remedies, acting through the systemic circulation, would influence both alike in consequence of the two capillary anastomoses—first, and most important, in the liver, and, second, in the connecting band.

The Obstetrical Relations.—The frequency with which monster births have occurred in all ages and all countries, as evinced by the number of cases found in medical museums, private offices, and reported in the medical journals every year, attaches great and special importance to this part of the subject. These births are not premature, as is generally supposed; but they come at full term like ordinary confinements, without any premonition of the complication. In the following reported cases, only one was said to be premature and this one only twenty days before the time. Such a birth may occur under the supervision of any practitioner, the proper obstetric management of which, in many instances, involves the life and future health of the mother and the life of the two unfortunate twins. In this embarrassing perplexity the impulse of the moment is not always a correct index to the proper treatment necessary to be instituted. One rash, inconsiderate step will jeopardise the life of three human beings. The hopes of the mother and friends are concentrated in the adjudged superior skill and wisdom of the attendant physician. What landmarks, then, have we from past experience?

W. S. Playfair, M.D., selects from Dr. Allan Thompson's classes four varieties which interest the obstetrician:*

First. Two nearly separate bodies united in front to a varying extent by the thorax or abdomen.

Second. Two nearly separate bodies united back to back by the sacrum and lower part of the spinal column.

---

*See Obstetrical Transactions, VIII.

Third. Dicephalous monsters, the bodies being single below but the heads separate.

Fourth. Bodies separate below, but the heads fixed or partially united.

Dr. Playfair has collected 31 cases belonging to these four classes, which present the following ratio of frequency: First class, 19; second class, 3; third class, 7; fourth class, 2. It will be observed, as a point of professional interest, that a fraction over three-fifths of the whole number belong to the first class.

Of the thirty-one births, twelve were delivered by natural powers and without difficulty. How fortunate that nature is so provident and sumptuous in her resources, to overcome obstacles.

In the nineteen cases belonging to the first class, to which, also, belongs the pair presented in this paper, and the Siamese twins now living, of whose birth no account has ever been given, the labors resulted as follows: "One (mother) died undelivered; eight were terminated by natural powers, in three of which the feet and in three the head presented; in two the presentation is doubtful; six were delivered by turning, or by traction on the lower extremities; four were delivered instrumentally."

In the three feet presentations, delivered by natural powers, the best account is given by Fanzango, of joined twins, born alive at Camignore, November 6, 1602, who lived a number of years and were exhibited in Italy. The bodies were only united by the upper part of the abdominal walls. Fanzango remarks:* "It was a happy circumstance for the mother that she was not under the charge of a practitioner with his head full of the doctrines of the surgeons on this subject, otherwise he probably would have performed some severe and dangerous operation, mutilating the children, with the view of aiding delivery." The same remark is *apropos* to the surgeons and physicians of the present day, who think the Siamese twins have committed a great sin by remaining, as nature formed them, *united.*

---

*See Obstetrical Transactions, VIII.

In the cases of version terminating favorably, the mechanism of the labors was the same as in feet presentations. The best account of delivery, by version, is given by Drs. Brie and Molas, each relating a case in his own practice. Dr. Brie called to see a patient under the charge of a midwife, found two feet belonging to two different children presenting. He replaced one foot and brought down one corresponding to that already born, made traction and delivered the lower half of the child; the connecting band prevented further progress. He then recognized the mode of connection, introduced the hand, brought down the feet of the second child, and by continued traction delivered both simultaneously as far as the heads; at this juncture all progress was arrested and further pulling only increased the difficulty. He then made traction "by turning the bodies of the children over the abdomen of the mother, the posterior head became engaged in the pelvis and after it was delivered the second easily followed."

Dr. Molas' case occurred in a healthy multipara, aged thirty-two years. The labor commenced at 7 P. M., August 15, 1822; 6 o'clock A. M, next morning, the os uteri being fully dilated, the membranes were ruptured. The two heads presented at the brim of the pelvis at the same time; he tried to push one aside to allow the other to descend; no further progress being made in one hour of strong pains, he desisted. He suspected joined twins and determined to turn: he introduced his hand, found the children united by the thorax and brought down the feet of both. "The bodies were delivered with ease and the arms came down of themselves, but considerable difficulty was experienced in extricating the heads, which was only effected by pulling the bodies of the children well over the abdomen of the mother, so as to get the posterior head to engage first in the pelvis."

In three cases—the labor conducted by natural powers—the head remained the presenting part; the trunk, nates and feet followed by evolution; then usually follow the feet of the second child. In some, the head of the second child presents after the body of the first child is delivered, as in Dr. Bright's case, which was skillfully managed. In other instances, the two heads are born first, one immediately after the other, and the two bodies pass the straits of the pelvis simultaneously. When this occurs the head of the hindmost fits into the depression formed by the neck of the first child; to do this requires a wide and well-formed pelvis.

In the second class—united back to back—the labors terminated without manual assistance. In the two described, the head presented first.

One case is that of Helène and Judith, who lived about twenty-three years. "Helène was born as far as the umbilicus, and after the lapse of three hours, her breech and legs descended. Judith was expelled immediately afterwards, her feet descending first." The same mode of delivery accompanied a case related by M. Norman; the children were born alive and survived nine days. This class is more easily delivered than the first, in consequence of the union at the lower part of the trunk, allowing more latitude of motion and permitting the breech and lower extremities of the first to pass readily by evolution.

In the third class—dicephalous monsters—two of the seven cases were delivered by nature's powers; one head first presenting, then the body and next the second head.

In the only two cases related, belonging to the fourth class, the head was perforated in one and version resorted to in the other. It is remarkable, that in all these reported cases, the mothers, with one exception, made good recoveries.

The management of the labor in all the classes may be best studied from the following rules laid down by Dr. Playfair, in the summary of his excellent article:

1. Of the various classes of monstrous twins, those in which the bodies are joined by the sternum or abdomen are much the most common.
2. The most favorable presentation is undoubtably that of the lower extremities; and if the head present, and the nature of the monstrosity can be recognized, turning should be resorted to, and the feet of both children brought down to the pelvis.
3. The bodies can generally be extracted without much difficulty by direct traction, until the shoulders have passed. In doing this, the backs of the fœtuses should be placed in one of the oblique diameters of the pelvis.
4. The bodies should then be turned well over the abdomen of the mother, so as to cause the posterior head to pass first into the cavity of the pelvis. If this cannot be effected, the anterior body must be amputated, when the other will probably pass without difficulty.
5. If the head presents, the body corresponding to the first-born head may be expelled by a process similar to that of spontaneous evolution, or the second head may be expelled with its occiput fitting into the cavity formed by the neck of the first child. Failing in either of these terminations, mutilation of the fœtuses will be required.
6. In class two, in which the children are joined back to back, the mechanism of delivery is essentially the same as in class one, whether the head or feet present. But evolution of the body of the first-born child, in head presentations, is probably accomplished with greater ease.
7. In class three, after the birth of the first head, the body must be expelled by evolution. If this is not accomplished, it will be advisable to decapitate the first-born head, and to terminate the labor by bringing down the feet of the child.
8. In class four, when either the head or feet present,

if the head causes obstruction, it must be lessened by perforation, when, in all probability, there will not be much difficulty experienced in effecting the birth of the bodies.

No record of the number of these thirty-one cases of twins born alive is given. The great majority die during delivery, from continued pressure on the umbilical cord, occasioned by the delay in delivering the first body, where they are born one at a time; or, by the delay in the passage of the two heads through the pelvic straits, where the feet present either naturally or by version. It is highly probable, if the rules, already quoted, are promptly carried out, the mortality in future will be very much diminished.

The great surgical question to be decided is the propriety of an operation to sever the bond of union. Is it justifiable? Will its results terminate favorably to the lives of both? Are we, in the premises, warranted in jeopardizing the lives of two individuals, for the purpose of adding to their personal comfort and convenience, and, we may add, our own fame?

The rational solution of these questions depends on the nature of the attachments. When a dwarf, miniature or blighted fœtus is attached to the superficial soft parts of some portion of a healthy, well-developed child, viz: the cheek, as in Prof. Pancoast's case, an operation would be highly proper with every reasonable hope of success. But where the attachments involve any considerable portion of the abdominal or thoracic walls, an operation under any circumstances, when the twins are in good health, is questionable; nor do previous results justify its performance.

In order to indicate some of the insuperable anatomical objections, we will refer to some of the abnormalities of visceral conformation recorded in some few instances at my command, where dissections were made. First case, reported by T. H. Tanner, M.D.* Sex, female; stillborn at the eighth month. The attachment extended from the top of the thorax down to where the natural umbilicus should be. The thoracic cavity was common, containing two lungs, one heart and one sternum. The abdominal cavity was common, "having one liver, one spleen, two kidneys and one set of intestines," one single cord and placenta. Second case, reported by J. G. Swayne, M.D.† Sex, male. The union extended from the umbilicus to the top of the thorax. There was one sternum and four clavicles, one thoracic cavity with a pericardium, containing two separate perfect hearts, one venous connection through a large branch connecting the right vena innominata of one fœtus with the left vena innominata of the other. In the abdomen there was a single diaphragm, one common liver, one umbilical cord having one vein and four arteries. All the other organs in both cavities were duplicated.

Third case, by W. Wills, Esq.‡ Sex, male; children were well developed and connected from the upper part of the thorax down to the umbilicus. Umbilical cord double and in one sheath entered the cavity between the fœtuses; one large single liver, one gall bladder with two biliary ducts and one large spleen. The intestinal canals and all other abdominal and thoracic viscera were double and perfect.

It may be argued that the connection in these instances was too extensive, and, therefore, they are not analogous cases and do not militate against an operation where the attachment is limited to the ensiform cartilages and abdominal walls. The thoracic attachments have nothing to do with the question, these cavities are separate and distinct from the abdomen. Had the bond of union been limited to the latter, the same malformation would have existed, viz: in each instance one or more of the vital organs single and common to both. Who then can determine beforehand, with certainty, that a similar or some other malformation does not exist, where a similar union of soft parts obtains?

---

*See Obstetrical Transactions, Vol. II.

†See Obstetrical Transactions, Vol. II.

‡See Obstetrical Transactions, Vol. VII.

In the case reported by myself, there was nothing in a superficial examination to indicate the presence of a liver in the band. The upper half of the band was thicker than the lower, somewhat soft and spongy to the touch, feeling more like thickened cellular tissue, with the ensiform cartilages prolonged through the upper margin, than an organ. There were no arteries of sufficient size to give any considerable impulse when compressed. Had they lived and grown up, it is reasonable to suppose, that the wearing of boys apparel, would have diminished the width of the band, and that the pressure on the surfaces would have gradually changed the shape of the liver, by lessening the size in the central portion and enlarging the two extremities. No organ in the body is so amenable, without injury to its structure and function, to a change of form, either from external or internal pressure. Constant tight lacing will entirely alter the shape and even the natural position of the liver. Cruveilhier, in his anatomy, says of the liver: "It may even be said to be, as it were, ductile or maleable under the influence of slowly exerted pressure." Speaking of tight lacing, he says: "A circular constriction and a fibrous thickening of this organ opposite the base of the thorax, sometimes affords evidence of this compression; its transverse and antero-posterior diameters become diminished, and its vertical diameter increased; it projects more or less below the base of the thorax, descends as low down as the right iliac fossa and may even touch the brim of the pelvis without any *structural lesion.*"

A similar change of form in the liver is likely to occur in living twins joined by the abdominal walls. A common liver, however, in the centre of the band is not uniform; other conformations are found. In one case, out of the one hundred and fourteen reported of this particular connection, viz: an umbilical cord with one envelope, the band was divided, six arteries and one vein were tied on either side of the mesian line on which the incision was made. The success of the operation may be inferred from the report of the case given in the latter part of this article.

An important surgical question of the present day is the propriety of dividing the band connecting the celebrated Siamese twins, the only known pair now living, of this kind of union. No occasion has ever offered to enable me either to see or examine these twins. The proper solution of the question will be decided by the analogies between them and other similar attachments and the results of previous operations. Some distinguished professional gentlemen maintain that they ought to have been separated long ago; first, from the fact that their nervous physiological relations are distinct, and, second, that the bond of union is only cartilaginous. The mere discovery, by touch, that common sensation only exists at the centre and for about one inch on either side of the middle of the band proves nothing; for here we have only the terminal branches of the sensitive nerves of two distinct nervous systems, and this phenomenon is only what any one versed in anatomy and physiology would expect to find. The existence of two separate brains, spinal cords, and nerve branches, in this form of attachment, would naturally develop, in the twins, different dispositions, temperaments, intellects and physiognomies; the same as in disconnected persons. While the vascular and lymphatic inosculations in the band would establish a common sympathy, when either suffered from any disease developing constitutional symptoms. There is not the same reason to look for common sensation in both from touching one twin, as we would expect in our own person having but one nervous system, to feel the sensation of an injury in the left foot, which was inflicted on the right. A single brain and nervous attachments are capable of executing different feats at the same time. Example: the musician singing in one key and playing in two different keys at the same time. (Why not expect two different brains to do the same?)

In regard to the analogies of conformation, Mr. Holmes, (Surgical Treatment of the Diseases of Children) says of the Siamese twins, "the band which united them stretched downwards from the ensiform cartilage. It measured three and one-fourth inches in the vertical direction, one and five-eighths inches at its thickest part from before backwards, and it was one and three-fourths inches long at its upper and three inches at its lower edge. The ensiform cartilages of the two bodies meet in this band and seemed to be united by a kind of joint. A hernia projected into the band from the body of each of the twins." Prof. J. C. Warren, M.D., (Silliman's Journal, 1830,) who saw them when they were eighteen years old, describes the band as follows: "The substance by which they are connected, is a mass two inches long at its upper edge, and about five at the lower. Its breadth from above downwards, may be four inches; and its thickness in a horizontal direction, two inches." "At its lower edge is a single umbilicus, through which passed a single umbilical cord, to nourish both children in the fœtal state." He found this band extremely hard to the touch. It was found, on a more minute examination, that the hardness existed only at the upper part of the band and was "prolonged into the breast." This substance was formed by a continuation of the *ensiform cartilage*, or lower extremity of the breast bone, from one to the other; its breadth was one and a half inches; its thickness about one eighth of an inch. These projecting cartilages met at an angle in the centre, connected by a ligament which formed a joint. Below the cartilage was felt a rounded cord which Dr. Warren supposed to be the fibrous remains of the umbilical cord. The analogies here, between the external appearance and measurements, and other cases given in the text, are striking. From what Dr. Holmes says, we would infer, that in early life, a free communication existed between the abdominal cavities; from the irritation excited by pressure and pulling, the peritoneal surfaces may have adhered or grown together and closed the common canal through the band.

Such adhesions do occur in this way, and why not here. If it has, it would enhance the probabilities of success in an operation. A double cord in one envelope may have existed, as in case third, referred to above; or the cord may have been single as in the other cases, and coursed through the band which had in it neither a common communication nor a vital organ, as in Dr. Boehm's case mentioned below. The true relations can only be determined by actual dissection. What have been the results of operations in this form of union? Dr. Holmes* says: "As to joined twins, one successful operation for their separation is on record by König." "The band is described as stretching from the ensiform cartilage to the umbilicus, and being an inch broad, one and a half deep and five inches long." The umbilical cord was single and contained four arteries and two veins. It will be noticed there was in this case a double cord in one envelope, as in case third, cited above. Dr. Holmes further says: "Its lower part was attached to the band and it *seems doubtful whether the band was really anything more than a fusion of the two cords.*" "A ligature was put upon it first and then divided by the knife." "In the only other case which I have met with, in which the separation of joined twins was attempted, the result was fatal"*

---

*Surgical Treatment of the Diseases of Children.

The New York Medical Journal for December, 1868, gives the report of the following case operated upon, taken from the "Revue de Therapeutique Medico-Chirurgicale, of August 1."

Dr. Boehm has successfully performed the operation of separation of twins that were adherent to each other by a fleshy band.

The junction between the two children (females), who were very small, but in other respects well developed, commenced at the inferior extremity of the sternums, which were entirely distinct or separated, and following over the xiphoid cartilage, terminated in a single or common umbilicus. This connecting band was soft to the touch, not unlike a thick cushion of cellular tissue; but there could be felt, as it were, some hard and knotty cords, which later, on dissection, were found to be formed by the cartilaginous branchings which, starting from the two xiphoid appendages, joined together the middle of the band, in order to form a cord, by the side of which coursed the vessels of the umbilical cord. The operation commenced by dissecting up and isolating the vessels of the umbilical cord, which was single and had one envelope, a single sheath closing in all the vessels. This sheath was divided by a bistoury, and the vessels were dissected up three or four inches from the umbilicus. In this way six arteries and one vein were dissected out on each side and were ligated separately. After this the operator made an incision upon the band, parallel to the surfaces of the thorax, and taking care always to keep in the median line, cut more deeply into the cellular tissue, divided the union of the cartilaginous appendages, and, passing between the two points of insertion of the umbilical vessels, arrived finally at the skin on the opposite side, when a single stroke of the knife finished the operation. Very little blood was lost. The two flaps had a length of five and a half centimetres and were united at three points by suture. Union took place by the first intention; but one of the infants, which, from birth, had shown less strength and vitality than the other, died on the fifth day. The other is now living, at the age of five years; is in perfect health and well developed, except that there is a separation six centimetres in length in the linea alba below the xiphoid appendange.

---

*In the fatal case the union was in the coccygeal region.

According to the statistical researches of Fœrster, out of one hundred and fourteen similar and collected cases, this is only the second, where a successful result has followed the operation of separation."

The result here is certainly a strange kind of success to claim; the band was severed and the feeble child died in five days—the death to be fairly attributable to the operation and nothing else, and an opening, over two inches in length, through the abdominal walls of the living child. So far as regards the *mechanical part*, it was a success, as much so as when a butcher, with usual dexterity in the use of the knife, severs the jugulars of an animal. As to the results, the operation was a *failure*. Had they been let alone, the blood from the healthy child would have aided in sustaining the feeble one, with the same happy results that follow transfusion of blood from the vein of a healthy person into the veins of a patient exhausted from loss of blood or by disease.

The mere dissection of one of these bands is much less difficult and requires less skill than the removal of a tumor from the anterior region of the neck; hence the division is no surgical feat.

The object of an operation is either to remove or release a diseased part, in order to save and prolong life; or to remedy a deformity natural or acquired. To the former belong operations of necessity, where the aims justify the means, whether the patient survives or dies; as, for example, amputations, strangulated hernia, &c.

To the latter belong operations of choice, where the patients, or their representatives, in cases of minors, solicit an operation. Example: in contracted tendons, moles, supernumerary toes, fingers, cleft palate, &c. It is but seldom bad results to life follow such, and, therefore, they are justifiable.

But where the results have been almost, we might say, universally fatal, as in joined twins, no operation should be hazarded by the advice of the surgeon, unless one should die before the other; then it becomes a necessity. If the twins, knowing all the risks, demand a division of the bond, a surgeon might, under protest, execute the mechanical part, they relieving him of all responsibility. The *success* would be an accident, not skill. If one or both died, he could console himself with the thought that he acted in obedience to their commands and not his judgment.

The Siamese twins have been severely censured for violations of the moral and social relations of life; these strictures being based upon the supposed simplicity of their bond of union. What have they to hope for in an operation, when no one case, coming properly under their particular mode of junction, has been successful? In the only case of success, the band was only one inch in breadth, had two umbilical cords in one sheath, and, as Dr. Holmes remarks, was probably only a fusion of the cords. The preservation of life is an inherent principle, and, in view of all the facts, the Siamese Twins have acted with discretion and much wisdom. As to the moral question, we have only to say to the moralists: first renovate society at home of all the social evils, before going into North Carolina to hunt up the unfortunate Siamese twins, against whom to hurl anathemas.

ORIGINAL CORRESPONDENCE

"Sit mihi Fas scribere audita."

PARIS, FRANCE, December, 1868.

French Surgeons on the Resection of the Hip-joint in some cases of Caxalgia.—The Imperial Society of Surgery is at present discussing a subject, which, by no means new, has never failed to find great opposition; we mean the *resection of the hip-joint for caries.* What called forth a renewal of this question was an observation read by M. Verneuil to this body, on the 14th of October last, in which he gives an account of that operation practiced by him, quite recently, on a man aged 23, suffering from the last stage of morbus coxæ. The case ended fatally, the fourth day after the resection.

Why is it that an operation, to-day accepted by nearly all surgeons of England, Germany, America, and even Russia, finds so few imitators in France? True, the cases practiced here have not been of a nature to encourage the example. Where is the fault, and why elsewhere do we hear daily of successes?

We wish to speak of the operation from a French point of view. Leaving aside England, the birthplace of resections and where first it found its advocates, soon to be followed by German and American surgeons, of which facts such men as Sayre, Bauer, Hodges, Lyon and others have given proof, by their able writings, there, as elsewhere, this operation is established, ranks as classical and is often crowned with good results. With us, it is otherwise; it seems that this great operation, like many others, ovariotomy for instance, can not thrive. But, before entering upon our subject, let us review, in a few words, the very little France has done to promote its study.

Vermandois, first of all European surgeons, (and a few years after the Royal Academy of Surgery had given for prize essay the *exarticulation of the hip*, 1783,) was led to experiment upon animals, by the resection of the coxo-femoral articulation, in order to convince himself of the possibility of such an operation. He published his labors in 1786, (Journal de Med. Chir. and Pharm.,) believing himself the inaugurator of the idea, forgetful, or perhaps not knowing, that long before him, J. D. Schbichting recorded a case, where a surgeon (1730) extracted the head of the femur already separated from the shaft of the bone and where good results followed the operation: or that Charles White (1769), after having practiced upon the dead subject, proposed this operation, and thought it applicable for most cases which had heretofore suffered amputation at the hip.

A few years later, Chaussier (1799) recommended the the experiments of Vermandois, but upon a more extended scale; he, in order to imitate, as much as possible, the pathological condition of the parts which should call forth excision, irritated the wound in a manner to cause suppuration and to retard the progress of cure; but in spite of these means, the animal not only lived, but had good use of the limb, and a new articulation was found four years afterwards. These facts and other cases where the head of the femur had been extracted successfully, and even White's case, (1821), gave no encouragement, and the operation found no imitators in France.

One who would give himself the pains to search the various authors, (and in some it must be said the paragraph "*resection of the hip*" is yet to be filled), would find but little which speaks in its favor, and when mentioned at all, it is severely criticised, called rash and impracticable.

Percy and Laurent thought it would be wise to abstain from such an operation, and Velpeau asks what could be the disease sufficiently grave, demanding resection of the hip, without having attacked the cotyloïd cavity, etc., and there he takes up the old idea of Syme, as regards that "noli me tangere" the acetabulum.

Roux, to whom fell the lot to be first to make the attempt at this operation, for caries, in 1847, (Gaz. des Hôp.) on a patient aged fifteen, in which case death followed a few days after, was previously to that epoch violently opposed to such measures, and even urged, among other objections to the operation, the large mass of muscles covering the articulation, making the operation *difficult*, an objection which for so distinguished an anatomist and surgeon as was Roux, can scarcely command respect. Should a surgeon lay aside an operation because of its difficulty? We are not a little astonished that something to that effect was said by M. Nélaton, only a few years ago, (Gaz. Hôp., 1862,) who sees some difficulty in reaching the acetabulum, because of its depth and danger in gouging or cauterizing the same.

When Sentin performed this resection in 1831, at the seige of Antwerp, for gun-shot wound, he was seriously blamed by his fellow surgeons, and Paillard thought it best to have amputated at the hip.

It was not our intention to speak here of the value of this operation in military surgery, though the recent tables of Prof. Gross, of Philadelphia, (American Medical Journal, 1866 or 1867,) would tend to show the justness of Paillard's remark. But Gross has probably not included the cases collected by Prof. Paul F. Eve, of Nashville, (1867,) which, if added, would much change the conclusions of his table. The last Prusso-Austrian war has furnished us with but few further details on the subject. The resection of the hip for gun-shot injury was performed on the Prussian side only three times, with two deaths and one cured (Langenbeck, 1868.)

Returning to Roux's and Sentin's cases we will permit ourselves to say a word, in parenthesis, on two points very applicable yet to many French surgeons of to-day.

The first is, the extreme caution with which an operation, coming from abroad is taken up; not because of its immediate danger, or because of the difficulty of its execution, but from a dread of censure from their fellow surgeons; a fact which never fails to follow, if the case ends fatally. We have visited many of the hospitals in Europe, but in no country do we find so little cordiality, *at heart*, among the profession, as here in Paris. Each one is too ready to condemn the other. Chloroform, for instance, is most miserably administered here, and from no other reason than that the surgeon who, ten years ago, had the misfortune to lose a patient from its effects, has the fact recalled to him, even to this day, and, therefore, their extreme caution.

The second is a point more delicate, yet none the less true. We, here in Paris, have the habit of copying from authors, English and German especially, forgetting to give the proper source.

Roux, about the time of his unlucky resection, wrote to Textor, Jun., in Würzburg, for the thesis of Leopold and Oppenheimer, in which are given some of Bernard Heine's experiments on the resection of the coxo-femoral articulation on dogs. Roux, who probably mistook one of these experiments for a successful operation on man, has been copied ever since and up to this day, by the several French surgeons who have anything to say on this subject. Heine, whose name figures in many statistics as an operator, has never practiced this resection upon man. Germany, to the few who are so fortunate as to be able to read her medical literature, is a rich mine.

These remarks, though not altogether in accordance, with our subject, are by no means written to be read in America only. We have had no hesitation in speaking of this subject and in the same spirit to some of the profession here.

In 1855, M. Marzolin was the second to excise the head of the femur, but with equally bad results, and Sédillot, who had witnessed Textor's successful case in Würzburg, repeated the operation in 1858, but again unluckily, like his predecessors. Sédillot, however, and with him the whole school of Strasbourg, of which he is the head, has never ceased to uphold the operation as practicable, and it is from that quarter, that the first and only successes reach us. Bœckel, the translator of O. Heyfelder's excellent work on resections, operated upon a boy, aged eight years, in 1863, (Gaz. des Hôp., 1866,) and Sédillot upon a boy aged nine, in 1865. Both patients have useful limbs and are living (1868.)

Here, in Paris, it is otherwise; up to 1858, three operations, three deaths. It is, therefore, scarcely astonishing that M: LeFort's memoire upon this subject, presented to the Imperial Academy of Medicine in 1860, should have been received with so little favor. French surgeons, egotistical of their own merit, unbelieving in the successes of other nations, looked upon these cases, reared, as they were, for the most part upon English soil and based upon English opinions, with distrust. It gave to the several members of that honorable body an opportunity to vent their spleen upon the English and give in their objections, though there was at that time not a single member present who had ever practiced or even seen practiced that operation upon the living subject.

Gosselin even went so far as to prophesy that *never in*

France could such an operation find followers or be established. But, to-day, we find that gentleman's idea changed, for upon the table, herewith annexed, his name appears three times, and, though in operations thrice fatal, that professor, in a private interview, admitted the operation as justifiable and the execution of it as easy. Of the other members appointed to report upon LeFort's memoire, Jobert and Velpeau are no more, and the fourth one, M. Larrey, has but little changed his opinion. One year later, when Secourgeon, chief surgeon of the military hospital at Perpignan, asked, through M. Larrey, the advice of the Academy, upon a case of advanced coxalgia, then in his wards, Larrey, with Val de Grâce at his side, who had already decided, thought that amputation at the hip the most advisable plan. This, however, it must be said, in justice to some of the members of the Academy, was not the opinion of all. Chassaignac, Giraldès, Verneuil and Follin especially were in favor of excision, and in case, upon opening the joint, the disorder was found too far advanced, then to amputate. Certainly this seems to us the most rational and conservative advice, and proof of the success of such an operation has been furnished by Barnes (Lancet, February 6, 1868,) and quite recently by Henry Lee, of St. George's Hospital, (private letter, 1868.) These gentlemen, finding caries to extend too far down the shaft of the bone, though their incisions for resection had been made, changed the operation into a disarticulation at the hip-joint. Both cases have recovered. Secourgeon's patient survived the operation, but died the twenty-fifth day of phthisis (?).

Dolbeau's case of 1862 comes next. He, however, before operating, armed himself with the advice of M. Richet and which, it seems, shielded him somewhat from the bad results; yet the same stale objections had to be administered at the reading of the observation before the society; but Dolbeau, not daunted by his ill-success, very clearly pronounced himself in favor of the operation, as has been done since by others of the younger and rising surgeons of Paris, and he remarked, as did Verneuil recently, that the operation might have given a good result had he less delayed, and he felt convinced that, if practiced under more favorable circumstences, success could be expected and others would follow his example.

This question has been more or less discussed ever since, but always without coming to a definite conclusion as to the *indication for the operation;* the point most difficult, most important, and, we might add, least known. Indeed, in all the discussions, it was scarcely ever spoken of, until the other day, (sëance du 4 Nov., 1868,) after several sessions had been lost upon matters of minor importance and which had no real bearing upon the subject of resection, such as the wearing of the acetabulum upwards and backwards, and other points which are, or ought to be, long since settled. M. Marjolin broached the subject of, *when is the time to operate?* But though eloquent his words, he too, with three resections to strengthen his opinion, has said little which could serve as a guide.

We had the pleasure of an interview with M. Marjolin at his hospital this morning, for the purpose of obtaining an accurate account of his two other operations not included in our table, but finding them, like those of Giraldès' (two cases), not cured, we have omitted them from our statistics.

Taking our table as a basis of argument, we find that resection of the hip has been performed in France, from Roux's first and well-known case (1847) up to this date, seventeen times, of which fifteen patients are dead and two cured. This does not include, as already stated, the four cases not cured and of which two fall upon Giraldès and two upon Marjolin.

Here are fifteen deaths in seventeen cases! Where can we find an explanation for this fearful rate of mortality? Is it, as Malgaigne was wont to say, because the hospitals of Paris are the filthiest in the world. But this, even if true, can not alone account for so great a difference in the mortality of this operation, in this and other countries. If we were permitted to give our own explanation, they should be these:

Firstly. There are few people so badly nourished as are the inmates of our Paris hospitals, and especially the children, in whom our operation is principally indicated.

Secondly. The strumous diathesis in these children, who are brought into the world, by parents already degenerated, is very predominant, much more so than in America. There, it seems, many of the coxalgias, according to Sayre and Bauer, are referred to a traumatism; an opinion, by-the-bye, which finds no, or few, advocates in France.

Our ideas are not so exclusively surgical, that we believe, in all cases, "the diseased part is the disease." Certainly in diseases of the joints, this will not always hold good and therefore the relief which the resection of the diseased bone may give, in an otherwise healthy subject, can not be the same in those impregnated with scrofula. We find many of these patients coming to us with lesions, already discernible, of other organs, such as the amyloid degeneration of the liver, spleen, kidneys, etc.; with these, therefore, we can not expect success. But there is another class of patients who do not come under that chapter and it is for them, that our

Third and main explanation has reference to, namely, *the delay of the operation.* This, it can not be doubted, is here, in Paris at least, one of the greatest reasons for the ill successes which attend our resections of the larger joints, and more especially those of the coxo-femoral articulation.

The French accuse the English and Americans of being too exclusively surgeons, that they persevere less in a less heroic treatment, (that is to say, they operate too early,) and, therefore, their greater success from the operation. But we might, with the same justice, say, our Paris surgeons have too implicit faith in the conservative plan of treatment. True, there are cases cured without the interference of the knife; every surgeon has seen such cases (even where caries of the joint could not be doubted and where the condition of the patient seemed most hopeless) and recover by mechanical treatment. But how many are there not, where, with every care possible and a treatment both general and local, such as the most sanguine of the school of Bonnet could prescribe, the result is a fatal one. All surgeons are agreed upon the danger of the disease (morbus coxæ) arrived at a stage, when the hip is red, swollen, painful and traversed by sinuses, when the articulation is filled with pus, the cartilage detached and the bone carious. How are we to expect a return to health from such disorders? Yet such patients, where hectic fever has already set in, who are worn by want of sleep, by intense suffering and by loss of appetite, can be daily seen in our hospitals, couched in the gouttiere of Bonnet, without any other local offer towards a cure.

It is our opinion, that more could be gained in many cases, by freeing the patient of the source of the evil (especially if it be a local one) than by permitting it to remain and expect nature to form a cure. We pronounce ourselves in favor of early resection, the moment the surgeon has assured himself of the presence of caries of the joint, and we agree with Fock, of Madgeburg, that more lives can be saved and more useful limbs preserved by this than by any other treatment, at present known for caries of the hip joint.

These concluding remarks refer to our hospital patients. We are well aware that, in city practice, the prognosis is more favorable.

The medical faculty of Paris has elected (November 25) M. Dolbeau to the chair of "pathologie externe," and as the election was rather a curious one, I will say a word to you about it. You are aware that the professors of our school are the voters for all new professors. At the election, the older professors, even those who are no longer in exercise of their functions, like Andral, Cruveilhier and others, also assemble for the purpose of voting. Dolbeau was elected by one vote over Trélat, who, however, is the elder agrégé of the two. The ballot stood thus, out of twenty-nine voting: Dolbeau, 15; Trélat, 14. It appears that H—y and B—a, friends of Trélat, hurried off to get old Cruveilhier to vote for Trélat and so seated themselves on each side of that venerable professor and whispered the word Trélat in his ears. Now it seems that N—n, who was sitting in front of Cruveilhier, wrote upon a piece of paper the word Dolbeau, which Cruveilhier, seeing, pronounced and so Dolbeau was elected.

The following table is compiled with labor and expense, and is believed to be accurate and correct:

Table of Cases of Resection of Hip-joint Practiced in France. By R. R. Good, D.M.P.

No.	OPERATOR AND DATE.	Age & Sex.	DISEASE.	OPERATION.	RESULT AND REMARKS.	BIBLIOGRAPHY
1	Roux. 1847.	M. 15	Caries of articulation; sinuses; great emaciation.	The head dislocated and a portion of neck are excised.	Died the sixth day; the acetabulum found carious.	Gaz. des Hôp., 1847, No. 28.
2	Marjolin. 1855.	F. 8	Caries and suppuration; spontaneous luxation of head of femur.	Resection of head of femur; acetabulum carious, but was not gouged.	Died one year afterward from continued suppuration.	Gibert, Thése de Paris, 1859.
3	Sédillot. 1858.	M. 31	Caries of hip-joint; great emaciation.	Below great trochanter; évidment of femur.	Died ten months after operation from caries of pelvis and consequent peritonitis.	Sédillot, Évidement des Os, 1860.
4	Dolbeau. 1862.	M. 17	Advanced stage of coxalgia; several sinuses.	Below great trochanter, and acetabulum gouged and cauterized.	Died the seventh day from exhaustion.	Gaz. des Hôp., 1862, p. 415.
5	Bœckel. 1863.	M. 8	Suppuration of joint for ten months.	Under little trochanter; the great trochanter and acetabulum are healthy.	Completely cured 18 months after operation; good use of limb, with three ctms. shortening, but mobility excellent.	Ditto, 1866, No. 18.
6	Gosselin. 1863.	M. 17	Far advanced stage of coxalgia.	Section under great trochanter; the acetabulum is carious.	Died one month after operation from exhaustion.	Private communication of operator to the author.
7	Gosselin. 1864.	M. 18	Profuse suppuration; hectic and great prostration of force.	Under great trochanter, and acetabulum gouged.	Died few days after the operation from exhaustion.	Private communication of M. Gosselin to author.
8	Dolbeau. 1864.	F. 3	Caries.	Resection of the head of femur.	Died eight months after operation; autopsy; perforation of cotyloid cavity; caries of femur and tubercles at base of left lung.	Gaz. des Hôp., 1865, No. 127, and oral communication.

Table—Continued.

9	Giraldès. 1865.	F. 8	Very advanced stage of coxalgia; operation in extremis.	Under great trochanter; head found loose in the acetabulum; acetabulum gouged.	Died on the fourth day of hæmorrhage.	Private communication of M. Giraldès to author.
10	Sédillot. 1865.	M 9	Suppuration of a joint; from a fall.	Head and portion of neck of femur are resected; acetabulum gouged.	Cured in fourteen months, but limb feeble; walks with crutches; good motion and 2 ctms. shortening; seen in 1868 in good health.	Gaz. des Hôp, 1865, No. 112, and Sédillot, 1868.
11	Gosselin. 1865.	M. 40	Advanced stage of suppurating coxalgia.	Under great trochanter, and acetabulum gouged.	Died of exhaustion a short time after the operation.	Private communication of M. Gosselin to author.
12	Shrimpton. (Paris.) 1866.	F. 17	Suppurating coxalgia and subluxation of head of femur; of ten months' duration.	Resection of head of femur; brim of acetabulum diseased where the head rested, but not gouged.	Died six months after operation from profuse and continued supperation.	Gaz. des Hôp., 1867, No. 50, and private communication to the author.
13	Giraldès. 1866.	F. 9	Advanced stage of coxalgia; numerous sinuses.	Under great trochanter and acetabulum gouged	Died of purulent infection the fifth day.	Private communication of operator to the author.
14	Giraldès. 1866.	F. 12	Coxalgia, cachexia and extreme emaciation.	Under great trochanter.	Died of exhaustion a few days after the operation.	Ibid.
15	Giraldès. 1866.	M. 10½	Coxalgia; several sinuses behind great trochanter.	Under great trochanter, and acetabulum gouged.	Died 3 months after operation; perforation of acetabulum and suppuration of pelvis.	Ibid.
16	Giraldès. 1867.	M. 9	Coxalgia and spontaneous luxation.	Resection of head (very little diseased); acetabulum healthy.	Died of exhaustion six months after operation.	Bourneville and Bourgeois, Maladies des Enfants.
17	Verneuil. 1868.	M. 23	Suppuration of joint since two years; subluxation of head of femur.	Resection supperrating portion of femur (head and portion of neck); acetabulum cauterized.	Died the fourth day; infiltration of pus of the entire limb.	Société Imp. de Chirurgie., Séance du 14 Oct., 1868.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

"Judex Damnatur cum nocens Absolvitur."

THE PRINCIPLES AND PRACTICE OF OBSTETRICS. By GUNNING S. BEDFORD, A.M., M.D., Professor of Obstetrics, the Diseases of Women and Children, etc., in the University of New York. Fourth edition. 8vo, pp. 763. William Wood & Co., New York.

Facile eulogy and indiscriminate praise constitute the great faults of the modern reviewer. They have become gigantic evils and growing vices; working results pernicious and dangerous. The public are misled; the inexperienced physician is injured, the veteran is incensed and disgusted. The author remains blind to his own faults, defects and deficiencies, while the publisher, thus induced to over-estimate the strength and reputation of a writer, is tempted into extravagant outlay and betrayed into serious loss. These truths are too evident to require illustration.

It is not then a friendly act to the public, to an author, or to a publisher, to render undeserved praise, and while it is a pleasing office to direct attention to unquestioned merit, it is, on the contrary, a most unwelcome duty to expose error and indicate faults.

These thoughts are naturally suggested in an examination of the work, whose title forms the caption of this article. Dr. Bedford justly occupies a position of eminence and distinction. He has earned this, and it has been freely and fully accorded him. No American physician has, perhaps, received higher encomiums from the home and foreign press, in the view of works submitted for criticism. Some of this praise has been wholly undeserved, while the greater part of it has been justly, as well as generously bestowed. It is the object of the reviewer to direct attention to the great merits of Dr. Bedford's work, while, at the same time, he assumes the unwelcome office of exposing some of the errors and faults of its author.

The portions of the work devoted to the position and bones of the pelvis; the divisions and presentations of the fœtal head; the mechanism of labor; the organs of generation; deformities; menstruation; reproduction; signs, definitions and divisions of pregnancy; extra-uterine pregnancy; the placenta; the derangements of pregnancy; uterine displacements; developments of the fœtus; abortion; duration of pregnancy; labor in all of its stages and results; instrumental delivery, etc., are all deserving of commendation; they are well prepared and are monuments of the author's energy, industry, judgment and marked powers of analysis. While many object to some of his teachings, in the examination of the subjects specified, these objections do not, perhaps, involve subjects of serious consideration, and, in the main, the author would receive the support and commendation of his brethren. These portions of the work constitute its great value. There are others, however, which deserve equal mention, though the result may not be as acceptable or creditable to the author.

Few would agree with Dr. Bedford, in his teaching, that the blood of the chlorotic and pregnant female are, in the main, similar, unless it be in those instances, where the blood of chlorosis is examined in the earliest stages of the disease; before the secondary result, anæmia, is actually developed. In this connection, the author is to be thanked for showing the absurdity of the obsolete doctrine, that in bleeding the "buffy coat" is an evidence of either an inflammatory or plethoric condition, and for demonstrating the culpability of the common practice of repeated venesection, during gestation, because the blood of the pregnant woman manifests the traditional "buffy coat," which ignorance or persistent dogmatism ascribes to existing inflammation or plethora. When it is known that the excess of fibrin which gives origin to this "buffy coat" exists, not only in pneumonia, arthritis, etc., but in anæmia, hospital gangrene, carcinoma, and in many of the blood cachexes, it is to be hoped that physicians will reject the lancet, where such blood conditions exist, and will remember that this once classic evidence of inflammation (the buffy coat) may be demonstrated whenever the blood contains an increased amount of fibrin; whether the disease be carcinoma or pneumonia, etc.

Dr. Bedford asserts, that the muscular fibres of the recently delivered uterus not rarely, but commonly, (if not always) undergo fatty degeneration. What physician is prepared or willing to admit such teaching? Dr. Bedford gives Virchow as his authority for this statement, but, in doing so, he makes a serious error, and does great injustice to the veteran pathologist. This deposit of fat in the walls of the uterus is simply interstitial; it is a physiological process; whereas true fatty degeneration is a pathological result; it is an intrastitial deposit of fat, attended with an actual "necrobiological" condition of tissue. That the muscular tissue of the uterus lapses into a true fatty degeneration, after each delivery, and so "continues, until stimulated to new formations and a more perfect organization, by pregnancy," is a fallacy too manifest and palpable to require more than this brief exposure.

In discussing the treatment of hæmorrhage, by transfusion, the author declares, that the womb must be in a state of contraction and that this condition is an "essentional requisite" for the success of the operation. To postpone this operation, until such a condition can be secured would be inexcusable and were this condition actually induced, the operation would almost certainly be unnecessary.

The author gravely discusses the question, "is albuminuria always followed by uræmia." At the present day, is there any one who could make so serious a blunder in pathology, as to assert that uræmia was necessarily the result of albuminuria?

In discussing the pathology of uræmia, Dr. Bedford offers the old, obsolete and untenable teaching of Frerichs that uræmic poisoning is due to the conversion of urea into carbonate of ammonia, when all familiar with this subject are aware, that urine, urea, or even chloride of sodium injected into the circulation produce all the phenomena manifested when carbonate of ammonia is introduced into the blood. Since the old teaching of Frerichs, it is well known, that carbonate of ammonia is not a pathological, but a physiological element of the blood and it is illogical and untenable to teach, that the presence of a physiological ingredient of the blood is to be accepted as the explanation of a pathological result. The demonstrations of Oppler, Zalesky, Schottin and others, have long since given the *coup de grâce* to the views of Frerichs, as advocated and taught by Dr. Bedford.

Is there any one who would hesitate to induce abortion, if it had been demonstrated, that the pelvic conformation of the mother was such, as to render the passage of a viable fœtus impossible? Our author gravely argues this question.

In discussing the question of jaundice during pregnancy, Dr. Bedford teaches that a deeply tinged integument is a more favorable condition than one only visibly stained, as in this latter condition, there is reason to infer inflammation or scirrhus of the liver! In the treatment of jaundice, where the liver is visibly acting, where the reäbsorbed bile is staining the skin and producing nervous prostration, he advises that the patient be treated with calomel.

Were there sufficient space, there are other errors and defects in this work which would be indicated, but this short review must at present suffice.

The question may be asked, how is it that one confessedly accomplished can bring before the public a work containing so many errors and such obsolete teachings? The answer is simple. Dr. Bedford had his book stereotyped many years since, and while he has been incautious and indiscreet enough to present these old teachings for criticism or adoption, the science of medicine has progressed, as usual, and his teachings have become obsolete. This is a charitable explanation, for the writer can not believe, that the accomplished author would pretend to advocate, at the present day, teachings which he has incorporated into this last edition of his work.

In the preface, the author states that the volume has been "thoroughly revised and some important additions made," etc. Of course, revision, in a stereotyped work, is only possible, by the interpolation of new pages; the old can not possibly be corrected or revised. In the whole work this revision amounts to less than a dozen pages, and the addition is represented by a single chapter.

These are serious errors in a scientific work and they demonstrate the fact, that the use of stereotyped material is damaging to an author, to his work, to the public and to the publisher.

Dr. Bedford's style has not undergone the change to be expected from riper years and more matured powers of judgment. The sensational; the pedantic; unnecessary and unnatural dialogues; meta-physical disputations in defense of admitted duties; "spread-eagleish" rhetoric in the analysis of scientific questions; dramatic denunciations of hypothetical casuists, etc., still deface and mar the author's style. Who, when called upon to arrest terrible uterine hæmorrhage, in a seduced woman, would subsequently, essay an oratorical flight in defense of his practice or philanthropy? For answer, see pages 307 and 308.

Dr. Bedford is an able practitioner; a successful teacher; a severe and laborious student; an author who has achieved the most brilliant success and who is justly entitled to the high position which he has persistently sought and confessedly won; but he has many faults which need radical correction. His friends hope, in the next edition of this work, to find a faultless monument of his admitted excellencies and deserved success.

The publishers have executed their office well, and the chromo-lithographs are very fair specimens of art.

THE DIAGNOSIS, PATHOLOGY AND TREATMENT OF DISEASES OF WOMEN, INCLUDING THE DIAGNOSIS OF PREGNANCY. By GRAILY HEWITT, M.D., London, Professor of Midwifery and Diseases of Women, University College and Obstetric Physician to the Hospital, etc., etc. First American, from the second London edition. Revised and enlarged; with one hundred and sixteen illustrations. Philadelphia: Lindsay & Blakiston, 1868.

In looking over this edition of Hewitt, we observe many important improvements in gynecological science, not to be found in the first London edition. The author, in the first edition, did not give that special attention to pathology, which the subject demands, but we are pleased to find he has now brought to view many important facts which give increased value to his work.

The American edition, before us, contains one hundred and sixteen beautiful illustrations, upwards of sixty of which are original; many of them representing cases treated by the author.

He has made very prominent the important fact, that correct diagnosis is not usually but absolutely essential to correct treatment. He has made two grand divisions of his work, by devoting more than three hundred pages at the beginning, to diagnosis. Part second contains his pathology and treatment.

In the first part we find a graphic description of all the means, in common use, for making careful explorations of diseased organs, in order to arrive at a correct knowledge of pathological changes which have taken place. The instruments advised for the explorations are simple and the directions for their use clear and explicit. The author's mode of comparison or differentiating one disease from many others, having similar symptoms, is very clear and in most instances, judicious. His method of diagnosticating pregnancy may be studied with advantage, by experienced practitioners. When we take into consideration the importance of such cases presented for examination, where everything sacred and dear to the female is at stake, as well as our own reputation, we at once see how careful a medical man should be in giving an opinion.

Hewitt has given much valuable information in a small space and this work will be read with interest and profit by all. His views in regard to pathology and treatment are much the same as those of nearly all English writers of the present day.

The student of gynecological science should not be satisfied with one book only on gynecology, but should read, with careful attention, the best authors. In doing so, he will find that American authors are not behind our English brethren. In comparing Hewitt with Byford and Thomas, etc., we find that they are authors of very high merit. I wish here to call attention to the very beautiful and instructive manner, in which Thomas contrasts diseases of apparently similar character.

After all I have written in favor of Hewitt, I think either of the above-named authors better adapted to the requirements of the American student of gynecological science. J. A. I.

MISCELLANEOUS.

"Non Omnes Eadem Mirantur Ament Que."

DR. VALENTINE MOTT—A BRIEF ANALYSIS OF HIS LIFE. Dr. Mott was born at Glen Cove, Long Island, August 20, 1785. His education was chiefly obtained at Newport, R. I. He commenced his medical studies at Columbia College, New York, in 1804, and, graduating in 1806, went to Europe to obtain the many advantages then unknown in America. As a pupil of Sir Astley Cooper, he enjoyed special facilities in the prosecution of his studies abroad, and attended regularly the classic teachings of Sir Charles Bell and Abernethy. Going subsequently to Edinburgh, he there obtained all the information in his power and enjoyed the teachings of Gregory, Hope, Dugald, Stewart and others.

Returning to America, he was given, in 1809, the chair of surgery in Columbia College, N. Y. In 1813, this institution was merged into that of the present College of Physicians and Surgeons in New York, and Dr. Mott was one among the number of teachers retained. He there remained until 1826, when, from difficulties arising between trustees and professors, he resigned and, with Hosack, Mitchell, Francis and others, founded Rutger's Medical College, N. Y. This Institution succumbed, in four years, the charter having been *successfully* disputed before the Legislature.

From the year 1830, Mott lectured in the College of Physicians and Surgeons, until he was elected to the chair of surgery and relative anatomy in the medical department of the University of New York; a position he filled, either as active or emeritus professor, to the period of his death.

Much of Dr. Mott's success was due to his untiring labors at the dissecting table, where, for many years of his life, a large portion of his time was industrially spent. As a bold and original operator he deservedly and permanently attracted the most critical attention. In 1818, when a young man, he placed a ligature (for the first time in the annals of surgery) around the arteria innominata, for aneurism in the right subclavian artery. The patient lived twenty-eight days, during which the radial artery could always be felt; there was no tendency to mortification or sloughing, even under this very serious and (as would have been anticipated) almost complete interruption of the circulation. In 1828, he exsected the entire clavicle, during which he applied forty ligatures. Mott called this, in his peculiar style, his Waterloo operation. The late Dr. Charles Bell Gibson, of Richmond, Va., (son of the late Dr. William Gibson, of the University of Pennsylvania,) performed the same operation, during the late war, for the removal of a malignant osteo-sarcomatous tumor. He applied but few ligatures and attached but little importance to the operation.

Dr. Mott is believed to be the first operator who tied the primintive iliac successfully, for aneurism. The common carotid he tied forty-six times and operated by lithotomy 165 times. He estimated the number of limbs amputated by him "at nearly 1,000." He "performed the first operation for osteo-sarcoma of the lower jaw in 1821," and claimed to have been the first to remove the lower jaw for necrosis. In 1830, he went abroad and received very complimentary and deserved attention, from the prominent professional men of Europe. This visit made a most permanent impression upon the mind of the great surgeon, and many of its incidents were related (almost unconsciously) in detail to his medical classes, during narratives, ostensibly and somewhat amusingly claimed to be clinical lectures.

Dr. Mott cut out two inches of the deep jugular vein imbedded in a tumor and successfully tied both ends.

These are, as well as can be ascertained, his original operations. He has closed, with a fine ligature, wounds of large veins, "even when an olive-shaped piece has been ut out."

Dr. Mott's published papers, as specified in a list furnished by himself, are as follows: Relative Anatomy of the Subclavian Arteries within the Scaleni Muscles; Injuries of the Skull and Brain; Pulsatio Epigastrio; Tying the Arteria Innominata; Exsection of the Lower Jaw; Tying the Common Carotid in Removing Tumors, and for Causing Atrophy in Malignant Growths; Removal of Thyroid Body, (weighing four pounds), with success; Nasal Operations; Tying Right Carotid for Aneurism of the Innominata; Hip-joint Amputation; Ligature of Carotids, Subclavians, external and internal Iliacs; Exsection of Clavicle, for Osteo-sarcoma; Ununited Fractures; Perchadermatocele; Fracture of Penis or more properly Laceration of Corpus Cavernosum; Removal of Tumors from Neck of Children; Tying Left Subclavian under the Scalenus Anticus; Admission of Air into Veins; Malignant Pneumonia; Diabetes; Life of Wright Post, M.D.; Mott's Velpeau, 4 vols., 8vo.; Discourse before Graduates, 1860; Mott's Cliniques; Discourse before the Binghampton Inebriate Asylum; Eulogy on John W. Francis, M.D.; Pain and Anæsthesia, (printed by the Sanitary Commission); Hæmorrhage from Wounds, (similarly issued). His "Thesis for Graduation," was on the Marsh Rosemary.

Dr. Mott was the recipient of very many and deserved honors. He received a complimentary diploma from Edinburgh, and from the State of New York, the title of LL.D. In addition to his title of A.B., M.D., LL.D., he enjoyed many others, as follows: Honorary Fellow of King and Queen's College, Ireland; Knight of Medjidechi of Constantinople; Fellow of the Imperial Academy of Paris, and the Chirurgical Society of Paris; Fellow of the Medical and Chirurgical Societies of London and Brussels; Fellow of the Medical Societies of Louisiana, New York, Connecticut and Rhode Island; President of the New York Academy of Medicine, Emeritus Professor of Surgery in the University of New York, etc.

Few men have operated as extensively and none more successfully than this distinguished surgeon, and yet, to show the error of the popular estimate of the income enjoyed, even by prominent surgeons, Dr. Mott has often been known to say, that he derived a large, if not the chief portion of his income from the practice of medicine.

In April, 1865, he contracted a low and anomalous form of fever; this resisting the treatment instituted, he died on the 26th of that month and was buried with all the honors that the public justly loved to bestow. His eulogy has been written by Drs. Post and Bedford, of New York, and ephemeral notices in regard to him have appeared in the professional and secular press of America.

In a paper of this kind, but little more can be said. Dr. Mott's name and record are now a large part of the professional history of America. He was, in all respects, a representative man; possessed of a superior mind, well cultivated and thoroughly trained; energetic, industrious, ambitious; original and bold as an operator; a successful teacher; true, honest and sincere in the private walks of life; honored, admired and trusted in all of his public relations; a great surgeon and good physician; a most worthy citizen; a true and noble man. With foibles, perhaps, as observed in even the best of characters, with conspicuous, uniform, amusing, but pardonable and harmless vanity, Dr. Mott enjoyed, through life, the respect, esteem, confidence and often the love of his intimates, his brethren and friends. Deservedly eminent abroad, as well as at home, with a character and record of which the American profession will ever justly be proud, this great and good man has gone to his rest.*

---

*Most of this material has been obtained from Dr. Samuel W. Francis, Newport, R. I.

Ocular Illusion.—"Last Tuesday fortnight, as Mrs. ——, a lady of literary tastes and studious habits, sat reading in her drawing room, the clock on the mantlepiece struck twelve; as the last stroke reverberated through the apartment, the door was flung wide open; in the act of raising her head to repel the supposed intrusion of her servant, her eyes rested on her late husband. She screamed and fell senseless on the carpet. This brought up such members of the family as had not retired to rest; restoratives were administered, and when Mrs. —— had regained her suspended faculties, being a woman of strong mind and highly cultivated intellect, she felt disposed to consider the whole distress she had undergone, as the result of certain associations between the melancholy tale she had been perusing, and her late loss, operating upon a partially deranged nervous system. She, however, considered it advisable that her maid servant should repose in her chamber, lest any return of what she considered a nervous affection should distress herself and the family. Last Tuesday night, feeling stronger, and in better spirits than she had been for some months past, Mrs. —— dispensed with the presence of her attendant, retiring alone to her chamber, and went to bed a little before ten o'clock. Exactly as the clock struck 10, she was awakened from her sleep, and distinctly beheld the apparition she had seen before, advancing from the table, (on which stood her night lamp), till it stood opposite to, and drew the curtains of her bed. She described her very blood as retreating with icy chilliness to her heart. The countenance of her beloved wore not its benevolent aspect, but the eyes beamed with stern regard on the trembling, half dissolved being, who, with the courage of desperation, thus addressed him:

"Charles! dear Charles! Why are you come again?"

"Jesse!" slowly and solemnly gasped the shadowy form, waving in his hand a small paper, "Jesse, pay my Medical Journal bill, and let me rest in peace!"—[*Ex.*

MINUTE INVESTIGATION OF THE KIDNEY.—M. Redonsky (Virchow's Archiv, bd. 41, 1867,) gives the following results of his investigations of the minute structure of the kidney: 1st. The uriniferous tubules are continued into the capsules of the malpighian bodies, or terminate in blind extremities. 2d. The malpighian capsules are placed on convoluted tubules, lined by nucleated epithelium; other and smaller canals, supplied with transparent epithelium, communicate finally with these tubuli. 3d. Straight tubuli are connected with some capsules, which at a short distance from these capsules, show the characters of the convoluted tubuli. 4th. The convoluted and the straight tubes are connected by tubuli, which are lined by transparent (non-nucleated) epithelium; the convoluted tubes are in communication with the capsules, and the straight tubes open into the pelvis of the kidney. 5th. Henle has described canals with transparent epithelium, as continuations of the tubuli uriniferi, which are really blood-vessels.

A SURE SIGN OF DEATH.—M. Martenot de Cordoux, of the Lyons Military Hospital, states the following as an infallible means of deciding on the certainty of death—a matter of more importance on the Continent than with ourselves, owing to the precipitancy of interments there.

Bring the flame of a candle in contact with a finger or toe, for a long enough time to raise an ampulla or bladder. If this contain serosity, life is certainly still present, while if it burst, discharging nothing but vapor, life is as certainly extinct. In one word, a dry vesicle is a sign of death, a liquid one, of life.—[*Exchange.*

TREATMENT OF BILIOUS REMITTENT FEVER.—Dr. W. B. Harvey, of Canton, Miss., in a communication to the New Orleans Journal of Medicine, relates the following easy and rapid mode of subduing this very serious affection. It is to be hoped that others who adopt the practice may have results equally satisfactory:

"Regardless of the stage, grade, or duration of the fever, the patient is directed to take a half gr. sulph. morphia, incorporated with grs. xv of blue mass, to be followed, in half an hour, by grs. x of sulph. of quinine (in pills) and at the same time a warm foot bath, the vessel to be placed in the bed and the feet kept in it for half an hour. The dose of quinine to be repeated in two hours. This, together with a little castor oil, in ten hours, to prevent ptyalism, is the sum of treatment, and the result, in my hands, has been a profuse perspiration and a speedy subsidence of all the symptoms—pain in the head and back, thirst, &c., &c. The fever may be expected to be subdued in four or six hours. While all must regard such success as a great desideratum, many, I am persuaded, will receive my suggestion with distrust, and few, I apprehend, will have the boldness to subject it to a practical test."

SYPHILIS CONTRACTED FROM CIGAR STUMPS.—Mons. Ambrosoli reports, in the Giornale Italiano della Mallatie Nernerēe, two cases of syphilis contracted by chewing the stumps of cigars picked up in the street. The primary lesion was seated, in one case, upon the anterior pillar of the soft palate, in the second case upon the palatine arch.—[*N. Y. Medical Journal.*

EVIDENCE OF DEATH.—An Irishman had been sick for a long time, and, while in this state, would occasionally cease breathing, and life be apparently extinct each time, when he would again come to. On one of these occasions, when he had just awakened from his sleep, Patrick asked him: "An' how'll we know, Jemmy, when you're dead—you'r afther wakin' up ivery time?" "Bring me a glass o' grog, an' say to me, 'Here's to ye, Jemmy,' an' ef I don't rise up and dhrink, thin bury me."—[*Exchange.*

NEW MODE OF COMPRESSION OF ARTERIES.—Now that digital compression has done wonders, some surgeons find it to be very tedious, difficult of execution, etc.; so M. Sarazin, of Strasburg, proposes to steady the limb by a starch bandage, and marking on the latter, when dry, the course, say of the femoral artery. Two fenestræ are now to be cut through the bandage where compression is to take place, and cork pads fitted into the fenestræ, the former rising two or three inches above the bandage. By rollers carried around the pads, and made more or less tight, compression is effected, the starch bandage preventing the rollers from acting upon the circumference of the limb.—[*Lancet.*

RING TREATMENT OF FRACTURES OF THE PATELLA.—Prof. Blackman states (Western Journal of Medicine, of May, 1868,) that he has successfully treated a case of fractured patella by means of the ring, as lately recommended and employed by Dr. W. A. Gibson, of St. Louis, and with his characteristic learning, he shows that this mode of treatment, of late years entirely forgotten, has a very ancient origin. It was employed by Albucasis, and approved by Guy de Chauliac, J. de Vigo and Bassuet, who adopted it at the Hôtel Dieu, of Paris, in the latter half of the 18th century. Permanus' ring, the little hat of Meibomius, and the wooden cap of Karltschmidt, all of which are referred to by Malgaigne (Treatise on Fractures), are of the same character. Heister, also, in his great work on surgery, published in 1739, which may be referred to by modern surgeons, with advantage, states that he used, with success, the ring treatment, by means of a perforated plaster, intended to include and hold fast the fractured knee-pan after it was set.

IN a lengthy paper on the Pathology and Treatment of the Different Forms of Croup, in the American Journal of Obstetrics, Dr. A. Jacobi gives the results in 203 cases of tracheotomy for croup, occurring in New York, in the practice of himself and three other physicians. Of the entire number, 50, or nearly twenty-five per cent., recovered.—[*Ex.*

M. Groussin mentions a fact of some interest in the Tribune Mèdicale, of July 12th, to show how much simple means, untried before, may accomplish when all other measures have failed. A boy about nine years old had forced a steel ring on one of his fingers; all attempts at removal by filing, cutting, &c., having failed, in a village near Paris, the medical man advised the mother to go the next day to town, and apply at the Hôtel Dieu. The surgeon endeavored to cut the ring in various ways, but the œdema was so great that he failed, and amputation of the finger was proposed. The mother left the place, and met a surgical instrument maker in the hall. The latter, having heard the nature of the case, asked her to come to his shop, where he placed the ring in a vice and broke it. Our first idea in these accidents is cutting and filing, but it is plain that well-regulated compression is more expeditious and effectual.—[*Lancet.*

Prof. James R. Wood, in response to the urgent call of the audience, gave an interesting account of his visit to the Old World, sketching, in a pithy style, the habits, the appearance, &c., of the distinguished savans of the medical profession. He also described the various anatomical museums, the college lecture-rooms, the hospitals, &c., which he had visited. The more prominent preparations in the museums, possessed of historic interest, also came in for a share of attention. The head and right hand of Scarpa were still preserved, with religious care, in the Paduan institution, as well as the specimens of John Hunter, showing his mode of treating aneurism, in England. His statement that Bellevue could seat, in its lecture-room, 400 students, was received with surprise, since, as a general thing, the professors of the Old World discoursed to meagre classes.—[*Ex.*

In 1505, the surgeons of Edinburgh were in no way behind the other schools in the three kingdoms, and we are somewhat surprised to read that "when the surgeons of Edinburgh were, in 1505 incorporated under the denomination of surgeons and barbers, it was required of them to be able to read and write, to know anatomie, nature, and complexion of every parte of the human bodie, and lykeways to know all vayns of the samyn that that he may make flewbothomie in due time, together with a perfect knowledge of shaving beards."—[*Ex.*

To Ether.—An article in a late number of Lippincott tells the following anecdote of Oliver Wendell Holmes: The other day there died a prominent citizen, who left a legacy to erect a monument to the discoverer of anæsthetic agents. You see they appreciate science at the "Hub!" This revived the old battle: Was it Morton, was it Jackson, who first found out the use of chloroform? There has also been a row upon this point—a feud like that of Bianchi and Neri—unappeasable and undying. The doctor was applied to in the dilemma. Who should have a statue? "Perfectly simple," said he. "One pedestal! Two statues! Morton here! Jackson there! Underneath the simple inscription, 'To Ether!'"—[*Ex.*

About the years 1665 and 1666, Richard Wiseman, who had served in the armies of James I. and Charles II.; as surgeons, advocated the following formula, for gunshot injuries: "Boil, in two pounds of oil of lilies, two new-whelped puppies till the flesh fall from their bones; add some earthworms in wine. Then strain, and to the strained liquor add ℥ij of turpentine, and an ounce of spirit of wine.—[*Ex.*

A French Nobleman, Marquis of Ourches by name, has presented to the Academy of Medicine, of Paris, £1,000, for a prize to the discoverer of an accurate means of distinguishing between real and apparent death. He gives this great prize on condition that the means of diagnosis shall be open to non-medical persons; if none but the profession can use it, the sum is reduced to £500.—[*Medical Press and Circular.*

Thymic Acid.—This acid, obtained from the essential oil of thyme, has been proposed as a succedaneum of carbolic acid or creosote. It emits no disagreeable smell, and is powerfully antiseptic. Its composition is $C^{20} H^{14} O^{2}$. In a concentrated form it may take the place of nitrate of silver; and, as an antiseptic, it should be dissolved in 1,000 parts of water, with the addition of a little alcohol. —[*Ex.*

Milk in the Breast of a Male Infant.—In a late number of the Lancet, Mr. Owens mentions a case of a male child, nine days old, from each of the breasts of whom he obtained half a drachm of milk.—[*Ex.*

Bismuth in Diarrhœa.—The editor of the Philadelphia Medical and Surgical Reporter gives the following advice to a correspondent: "In case of chronic diarrhœa in a child, which has been so obstinate and resisted all treatment, we would suggest that you treat with large doses of subnitrate of bismuth, commencing with half an ounce a day and increasing one drachm daily until one oz. a day is taken. This has succeeded in some remarkably resistant instances."

MEDICAL NEWS.

"Nulla Dies, Sine Linea."

The physicians and many of the citizens of Philadelphia, recently, extended to Professors Gross and Pancoast, a deserved and graceful tribute, in a public reception and festival, at the foyer of the Academy of Music, in that city. The addresses of these gentlemen were excellent, in every respect, and their testimony in behalf of the proficiency of American physicians, when contrasted with those in Europe, is justly gratifying to their countrymen. Many invitations were issued, and the attendance from other cities was very complimentary to the recipients of the ovation. The editor acknowledges the courtesy of the invitation received.

In the Abyssinian expedition, says the Deutsche Klinik, the English troops had ⅝ per cent. of their number sick, and ⅓ per cent. of deaths.

The death-rate among officers was 11 per cent. of the sick; among the privates 18 per cent. in the highlands, and 20 per cent. on the coast and on board the hospital ships. Three medical officers died, and three officers died from violence, one of them a suicide.

It is said that Nélaton's annual income from his profession did not often exceed 200,000 francs. This would seem to be a reasonable sufficiency for one of moderate requirements.—[*Ex.*

THE current number of the Quarterly Journal of Physchological Medicine contains an elaborate paper, by Dr. Austin Flint, Jr., in which it is more than insinuated that Sir Charles Bell was guilty of plagiarism in connection with his asserted discovery of the functions of the roots of the spinal nerves. As might be expected, when Flint strikes *steal*, the result is sparkling.—[*Ex.*

A WOMAN in France, forty years of a age, and at the completion of five and a half months of her seventh pregnancy, gave birth to five male children, each as well formed as in the case of a single child at that period. The children lived from four to seven minutes. There were five umbilical cords inserted into two placentæ.—[*Ex.*

WE learn, from the Lancet, that Dr. David C. McVail, of Northumberland, has constructed an instrument which, as he claims, will record the respiratory movements accurately, and can be applied easily to any part of the chest or abdomen.—[*Ex.*

MR. GEORGE TIEMANN, the veteran senior member of the house of Tiemann & Co., the celebrated instrument makers, of New York, and widely known to the American profession, is dead. He was 76 years of age, and died of cystic disease.

AT a meeting of the Royal Medical and Chirurgical Society, in London, on May 26, seven cases were reported in which morbid growths were removed from the vocal cords, by means of the laryngoscope.—[*Ex.*

RESTORATION of sight is promised to the Rev. Mr. Milburn—well known in this country as a former Methodist preacher and lecturer—by Von Graefe, the Prussian oculist.—[*Ex.*

DR. J. MARION SIMS has been elected a corresponding member of the Obstetrical Society of Beriin. He is a worthy recipient of such honor. Dr. Sims now resides in New York.—[*Ex.*

To Ambrose Paré, surgery is believed to be indebted for the introduction of the needle and ligature, being about the year 1569.—*Ex.*

EDITORIAL.

"Nullius Addictus Jurare in Verba Magistri."—HOR.

" The winter winds are wearily sighing;
Toll ye the church-bell sad and slow,
For the old year lies a-dying—
His face is growing sharp and thin—
Alack—our friend is gone,
Close up his eyes; tie up his chin:
Step from the corpse, and let HIM in,
That standeth there alone,
THE NEW YEAR."

The old year is gone. With its pleasures and its sorrows; its joys and its griefs; with its bright hopes and bitter disappointments; its grand triumphs and sad failures; with its motley record of ostentatious prosperity and secluded poverty; with its wealth and its wants, its diseases and its deaths, the old year has taken its place, irrevocably, in the shadow-land of history.

The old year is gone. The new year is with us. Millions are plotting and planning, are scheming and devising, are speculating and prophesying, in regard to that infinite, panorama which it is surely, to reveal to us.

This is the period, at which all men reflect most, and anticipate most; when the past is clad in the mystery of dreams, and when the future is surrounded with the magic charm of expectation. When the prudent and thoughtful, among all men, give patient and prolonged consideration to their respective avocations. When each worker, whether dignified with the sweat of the brain or of the brow, seeks to discover the errors that have detracted from his success, or to discern the means which will be efficient to prevent his failure.

While all men are thus examining the horizon of their future, it is but natural, that the physician should be among the foremost in this work of wisdom and of necessity; that he should be carefully investigating the field of his immediate labor; marking those portions of it which have been most prolific in the recent harvest, and preparing to eradicate the obnoxious weeds, whose tendency is to bring sterility and ruin to the soil.

It is this work, which in one of its relations, is of special interest to the medical reader, and, as the period is conspicuously appropriate, it is this work which the writer seeks calmly and earnestly to present, for examination.

The fruitful portions of the professional field are known and appreciated by all. The object of chief solicitude to the honest physician is to find out those portions that are unfruitful, and to unite with his brethren in securing there a prompt and permanent improvement.

If there is any fact in medical history which needs no argument for its demonstration, it is, that in America, during the past and previous generations, the opportunities for study and improvement were conspicuously diminished, after the graduation of the medical student; while at the present day, these facilities are as conspicuously increased. In consequence of the comparative deficiency and great cost of good medical works and journals, in the latter portion of the last century and in the commencement of the present, the opportunities for study were confessedly diminished, after the termination of a collegiate course, and, as a logical result, more time and attention were bestowed by the teacher in preparing the student for the active duties of his profession. More time and attention were also bestowed by the student, in fitting himself for these duties.

At the present time, when the press is so prolific, that the best authorities can be obtained at a comparatively small cost, arduous study is much more common among practitioners, and, as a result, students and preceptors (realizing this fact) rely too much upon the opportunities and facilties of the future, for repairing the injuries due to the imperfect and neglected work of the present. This is a serious evil; for while the practitioner can accumulate much valuable and miscellaneous information from his periodicals and his library, no advantages, even of this description, can atone for the loss of a systematic and efficient training, during a collegiate course. This training must be enjoyed, that it may furnish a solid and safe foundation for the future superstructure.

How is this great evil to be remedied? How are its results to be obviated? The natural causes of such results will become yearly greater; not less. Cheaper and more numerous publications will surely and naturally tempt the student to postpone present, for future labor; to be less diligent in the persevering study of his text books at college and to rely more and more upon the instruction to be derived from lecturers; from his medical college. It is, therefore, more and more necessary that such lecturers should be confessedly efficient in the discharge of these onerous duties.

Such efficiency is not found in the mere theorizer, the man of restless imagination, whose best efforts are inferior to the Arabian Nights; nor can it be ascribed to the mere book-worm, the compiler, the man of wonderful memory and valueless judgment, who tilts with his hobby in every arena, who is ignorant enough or dishonest enough to claim as original the familiar views of others, and whose brain, like the family attic, is burdened with valueless, disjointed and obsolete material; but such efficiency is due to the effect of sound natural powers, thoroughly trained and developed; to practical labor and study; to matured judgment; to varied as well as long experience; to good, sound common sense; to the power of expressing with facility, in good English and in good taste, the lessons to be conveyed.

Such men make great teachers, but they are rare. Though with difficulty, they can, however, be found, by the examination of large areas of territory or population. To look for them, or to expect to find them in one city, however large, is irrational. Even if found, a school so constituted must have its usefulness and its efficiency impaired, by local associations, jealousies, traditions, therapeutics and theories. It must manifest (when thus organized) in its teachers, that want of mental comprehensiveness, breadth and liberality which, confessedly spring chiefly from men who, in addition to superior natural powers thoroughly cultivated, have had the advantages of practical and personal familiarity with varied climates and their varied diseases; of residence in other latitudes and of associations with varied populations. To be a true teacher, one, after having been carefully trained at home, must have had the tendency to narrow-mindedness (professional as well as personal) removed by cosmopolitan association in his daily life, in latitudes and in literature. Such antecedents give, in addition to proficiency, judgment, mental breadth, and, that invaluable possession, common sense. A school to contain such men in its faculty must be conducted upon an eclectic and not upon a narrow or local basis.

To procure teachers upon this eclectic and only efficient basis, the inducement for them to leave their homes, business and associations, must be fully adequate. Distinguished men can not otherwise be obtained; for they will not give their services, without a full, just and liberal compensation and this can be given only by munificently enowedInstitutions; or by exacting a full, proper and sufficient fee from the student. Endowed Institutions are few indeed; the endowments of many of these are very precarious, and of some of them very hypothetical. Practically, Institutions safely, adequately and manifestly endowed are so few, that they represent but a fractional importance in the consideration of this subject; and it may be said, that a faculty of distinguished teachers, selected with judgment and care, from the country at large, can only be obtained, by the offer of liberal compensation, and that this can only be done, by exacting a full, proper and sufficient fee from each student.

Such a faculty can safely and successfully make the fullest charges. Students will gladly pay these. This fact is historical and abundantly evident in this country and in Europe. Conversely, students will only pay a full fee to an able faculty. This fact is also historical and evident. Judiciously organize a faculty of distinguished teachers, and students, (gladly giving the fullest compensation,) will immediately and most numerously congregate to profit by such instruction. This fact is equally historical and evident.

Good teaching can only come from the best men; and the best men will only assemble as teachers for a full compensation; and full compensation can only be obtained *justly*, by full and sufficient fees from students. Full compensation *can* be obtained by low fees, the great loss on each student (when a low fee is charged,) being counterbalanced by a grand aggregate of fees obtained from many students; *but such compensation is obtained by a faculty, at the expense of their brethren;* by forcing into the already crowded professional field three graduates to conjointly pay the faculty an amount, which one graduate, with the fee charged by prominent colleges, would alone contribute. If this is not done; if this act of injustice to the medical profession at large is not accomplished, the faculty obtain but one third of the compensation which most of our distinguished teachers will accept. Again, the best teachers in America will not, as a rule, be identified with such schools. This statement may not be welcome but it is believed to be just and true; it may be severe but it is regarded as correct. With a very large experience in regard to the sentiment of physicians throughout America, the writer believes that, in what is here stated, he expresses the sentiment of his profession. The faculty roll of low-fee institutions may be carefully examined by one thoroughly acquainted with American physicians, and there are few, comparatively, of these teachers, who are known to the profession, or who are regarded as prominent and eminent men. That there are some of these gentlemen who are gifted, accomplished, justly eminent and respected, the writer cheerfully and pleasurably admits, but these are the exceptions, and as a rule the low fees demanded, the insufficient amount received, and the principle involved, prevent the coöperation of most of our best men. This is too evident to require illustration.

The great body of the profession justly complain, that where they, whether poor or prosperous, paid full and ample fees, thousands really prosperous have now the same facilities extended for a fraction of this amount. They complain that low fees, as a rule, are adopted only by those whose obscure record does not enable them to charge full fees; an evil producing poor teachers and ignorant graduates. They complain that where competent men charge low fees, these can be compensated only by forcing into the densely crowded professional field three graduates, where one, paying full fees, would have been equally satisfactory to the pecuniary wants or philanthropic aspirations of the faculty.

An over-crowded field increases competition; diminishes individual income; diminishes, necessarily, individual experience, judgment and efficiency; compels a resort to some supplemental source of income, injurious to the professional standard, and serves justly to destroy the esteem and appreciation of the public.

A low-fee policy, with a distinguished faculty, immensely crowds the already over crowded professional field, or the faculty must abandon an occupation devoid of either honor or profit. Low fees, with an obscure faculty (too obscure to obtain numbers and profit,) result in poor teaching, ignorant graduates and evils even worse than those described.

Reduce fees still lower, and either every man will become a physician, his own physician, or no respectable man will confess that he is a doctor. The tendency to this condition is rapidly approaching, and all who value or esteem the profession of medicine can not too soon, or too actively take an interest in this important subject.

It may well be asked, by what principle of reasoning or ethics is it dishonorable to underbid a professional brother in practice, if it be honorable to underbid him as a teacher? In both cases, knowledge, skill, experience and service are rendered, for a pecuniary equivalent. If it is wrong to underbid a professional brother outside of the lecture-room, how does it become right to do this within the lecture-room? Is the principle guiding the physician in his vehicle destroyed, when he reaches the lecture desk? Does the closing of the lecture-room door convert a disreputable act, into one that is right and reputable? Does the crossing of a threshhold, simply, modify or destroy a proper principle? Is a passage to the college lecture-room to be like that made over the VENETIAN BRIDGE OF SIGHS; made at the expense of independence and liberty? If there is really a true principle, underlying the custom of justly dishonoring the physician, who underbids his professional brother in practice, should not the same principle apply, whenever there is an exchange of professional skill and labor, for a pecuniary reward? If all the customary and familiar references to "our noble profession," "our noble calling," etc., be not the vilest cant and the most disgusting fustian, should we not be tried by the true tests of nobility, the tests of principle and consistency? If these tests be applied, in what way can this system of underbidding in colleges be justified? The gentlemen resorting to this mode of preserving their corporate life do not pretend that the full charges made by our best colleges are not right and proper. They do not pretend to be philanthropists, or to say that they would not charge the same fees, if they could only obtain them. Then why do they underbid their professional brethren in this matter? Why do they descend to these low-fees? The answer is simple; because they can not obtain better. Because their record is so obscure, that they would ignominously fail, as they well know, if they attempted to charge full fees. Because such colleges, as a rule, are represented by faculties whose members are so obscure that, with some honorable exceptions, they are unknown a few squares from their own doors. Teachers, unheard of, who, like many unfortunate primiparæ, puffed up and swollen with their precious conceptions, either collapse and perish at their first delivery, or drag out a subsequent career of pitiable alarm or incurable sterility. As a result, these faculties have to hawk their wares through the streets, and are forced (if not content) to sell them to whoever will give anything; to sell them at only a fraction of the amount which they confess and believe to be just and proper. This condition of affairs is disreputable; it is ruinous and dangerous. The profession must correct it, and they can not do this too soon.

There are none more censurable for this dangerous condition manifested in the low-fee colleges of America, than the faculties of the oldest and best medical institutions in the country. They regret, they censure, they reprobate such a policy in their official letters and yet paradoxically, they recognize it and aid in perpetuating it. Why is this? Because they profit by it. Because those bearing to them the tickets of these low-fee colleges contribute over one hundred dollars each to the support of these faculties. This is unfortunate; it is unpleasant to state; but all know that it is true.

A singular fact connected with this low-fee policy in American medical colleges is, that such fees are adopted only in a very small area and only in the very centre of this country. In New England, New York, Philadelphia, Baltimore, Richmond, Charlottesville, Charleston, Savannah, Augusta, Atlanta, Mobile, Nashville, New Orleans, Galveston, San Francisco, St. Louis, around the entire circumference of this geographical circle, proper fees are demanded; it is only in the centre of this great circle, in Louisville, Cincinnati, Chicago, Cleveland and Detroit, that a low-fee policy is tolerated, recognized or respected.

New Orleans, stripped comparatively of her princely wealth, exacts a full fee; Mobile, with her great cotton interests and her capitalists ruined, does likewise; Georgia, desolated by the cruel hand of war, testifies, that at Savannah, Augusta and Atlanta, nothing less than full fees will be accepted; Charleston, prostrate in the dust, bankrupt and broken, adheres to the high policy which has always characterized her; Richmond and Charlottesville, seated in the centre of the great battle field, over which, for five years, stupendous armies contended for the mastery, torn and bleeding, with all but the spirit of their historic people crushed and broken, have not abated in the least the charges always considered just and proper.

It is only in the centre of this great country, in Kentucky, Illinois, Indiana and Michigan, wealthy States, prosperous and blessed, that we find colleges struggling for existence, by appealing to the cupidity, poverty or parsimony of those seeking to enter a generous and liberal profession.

What is the remedy for this gigantic evil? The National Association refuses to claim jurisdiction. It lays down the minutest rules for the private, personal, pecuniary and professional relations and conduct of physicians, but paradoxically declines to even consider the agencies that call physicians into being.

Why expend such serious and radical efforts in correcting evils, when a different course of action would prevent them. The gardener does not believe it possible to obtain a mushroom, by cultivating a toad-stool, or a cauliflower by assiduous attention to a cabbage; neither does the stock-raiser undertake, by any device, to convert a mule into a race horse. These desired results can be only obtained, by controlling their causes. The most ordinary cultivation will produce fair results, if the soil be respectable and the seed be well planted, but with poor soil, poor seed and poor planting, the plant, however nursed, must subsequently be a comparative failure. As long as the Association neglects to pay due regard to the circumstances surrounding the college, the student and the teacher, it will be idle to enact codes, or to expect that they can be appreciated or observed.

The great body of the profession, as represented in the National Association, is anxious to control this subject and to protect itself from the pernicious results existing; but this has been impracticable, because the schools have a preponderating influence in this body, and the schools have, until recently, been averse to such action. This subject has been, for a half century, committed to the schools and they have signally, confessedly, failed to grasp it; to deal with it in such a way, as to promote the true interests or welfare of the profession. They should never have had control of the subject and should not now. They are interested parties and should not be jurors. "Aliquis non debet esse judex in propria causa" is an old aphorism of common law conspicuously appropriate in this case. Self-interest stains the ermine of the judge and developes danger in the verdict of a jury.

Schoolmen are neither better nor worse than the members of the profession at large; they are human, however, and should not, as interested parties, be allowed to control a subject which is of vital interest to every physician, as well as to themselves. Until recently, they have been averse to any legislative action on this subject and, as they have held a preponderating influence in the National Medical Association, this body has consequently allowed the matter to go by default. Now, however, it is belived that a large majority of tho faculties in the United States would be glad to have the Association act promptly and decidedly upon this subject.

The writer has in his possession official letters from the great majority of the medical faculties in America, and while there is manifested an indsiposition to take individual faculty-action in the premises, there is a generally expressed desire, that coöperative action should be thoroughly and promptly instituted.

It is believed, therefore, that if the whole matter is brought up before the American Medical Association, at its meeting in May next, at New Orleans, that this growing and stupendous evil may be permanently corrected. To secure this action, it is incumbent upon every member in the profession, in towns and villages, in cities and throughout the entire country, to contribute the whole power of his opinion and influence. Let there be a general expression of opinion through resolutions, through delegated speakers, through letters and addresses. All papers on this subject should be sent to Dr. W. O. Baldwin, President of the American Medical Association, Montgomery, Alabama. Every physician in America is deeply and vitally interested in this matter, and to each one the writer addresses this earnest appeal.

So much for professional and general action. How are these evils to be locally corrected? Where colleges in the same city can not or will not do (as is done in in Boston, New York and Philadelphia) work on the basis of a common agreement; where they will not harmonize; where, instead of mutually respecting and assisting, they endeavor to destroy each other, either in their corporate or pecuniary integrity, creating offensive divisions; partizan cliques; offending the public sense of decorum and propriety, what is to be done? The answer is simple; the remedy is plain, though radical.

It is for the college which is ready and willing to adopt a policy sanctioned and respected by the first-class colleges of the country to propose officially and formally a certain pecuniary policy, a certain scale of fees, for joint adoption. If these will not be adopted as a common basis, and the competing college, rejecting the offer, seeks to fill its benches, by appealing to the cupidity, or parsimony, or poverty of students, instead of allowing them to be governed by the individual or aggregate merit of the respective faculties, then the college endeavoring, unsuccessfully, to establish this worthy and necessary change or condition, should enter, not partially, but fully and radically, into the arena selected by its competitor. It should publish a record of facts; pledging itself to sustain the better sentiment, the high policy adopted by first-class colleges, so soon as it can induce locally competing Institutions to abide by the tests which alone should decide the policy, as well as the prosperity of every college; the tests of actual merit and efficiency.

Meanwhile, the faculty, driven by this paltry pecuniary competition to adopt such a course, should not teach for a less fee, but should *teach gratuitously.* Such action would involve a sacrifice of very much time and labor and would, perhaps, induce a grievous misrepresentation of the motives alleged, but it is believed that those who are governed by the principles involved in this matter, who have the welfare of the profession, as well as that of themselves at heart, will not hesitate to make even greater sacrifices, whether these be temporary or long-enduring.

There is every reason, however, for believing that such a course could be avoided, by an observance of those higher and better principles of action which should characterize all honorable and laudable competitions. If colleges will mutually support each other, aid each other and respect each other, such colleges will necessarily find the necessity for this aid and support becoming annually ess, and the public esteem and respect for them justly becoming, annually and desirably, greater.

Colleges should, as is done elsewhere, consent to work by agreement. An agreement fair, just and equitable between such colleges is the true basis of action and the true key to prosperity. Such agreements would render the declared policy of such colleges fixed, definite and reliable, for, though such agreements have been grossly violated, it is to honor and credit of medical colleges, that, in their history, these disreputable violations have been rare indeed.

There is, finally, another mode of abolishing this low-fee system in medical colleges. The mode superior to all and more effective than all. It is by appealing to the medical grand jury of America; to the great and grand body of physicians composing it. Whether these be in the country, in villages, towns or cities, they are all honorable members of it. Each one has his influence; let him wield this for the good of his brethren, of his profession, and of himself. Here it is, that the true strength of the profession lies; herein is its great and irresistible power. Every physician should, for his own protection, for his own subsistence, for the welfare, the efficiency and respectability of his class, discountenance and repudiate any policy in medical colleges which tends, logically and directly, to professional disrepute, ignorance and inefficiency.

Every practitioner has this power in his hands. He has the judgment and discrimination that usually spring from age, practice and experience. He knows the great evils herein described. He should aid, to the best of his ability, in checking and destroying them. How can he do this? By declarations of opinion, by example, by action, but, chiefly, by sending students to those colleges, only, that advocate and *honestly pursue* a policy which he can esteem and respect.

We all bear the same relation to the great body of the profession, that the grain of silica does to the sea-shore; and as these grains, powerless if alone, when aggregated form impregnable defenses against the surge of the breakers, so will the united voice and quiet action of earnest men build up a barrier, against which the dangerous waves of innovation and depreciation may beat in vain. Let each and every physician then do his whole duty in the correction of these evils, and let it be said, in just commendation of each, "trahit quodcunque potest, atque addit acervo."

It may be said that a material portion of these views are partisan in character, and that they spring from the collegiate or local relations of the writer. He can only say that he has postponed publishing these views until the lists of all colleges were fully made up; that he has entertained them for years; long before his connection with any college; and that he has consistently advocated them, both privately and publicly, during this entire period. Were such views unworthily due to his collegiate relations, (a very minor consideration, certainly, with him,) they would not appear in this Journal; and no opinions of others or of his own, if possibly assignable to such a cause, will ever find a place in these pages. If the Journal can not be conducted on principle solely, and not upon despicable policy; if it can not be always and entirely independent of corporate or personal interests, it shall not be conducted at all.

The subject now presented is one of interest to every physician; the stupendous evils involved demand conspicuous discussion, plain language and the heartiest coöperation, for their removal. It is for these reasons that the subject is now presented; to secure the welfare, the efficiency and prosperity of the profession. To aid, however humbly, in securing these, the writer has made this earnest appeal, and, though anticipating a possible misconstruction of his motives, he is content to abide the decision and matured judgment of his brethren.

Editors of other Journals have advocated, in many respects, different opinions, and these opinions have been read with constant care and attention; the writer has, however, seen nothing to induce him to modify views long entertained and these views he has now endeavored and intended to present with courtesy and respect.

Should there be given, to this important subject, just consideration and coöperative action, a stupendous evil will soon be removed, and, there will have been, happily, added other reasons, to the many now existing, for wishing the members of the American medical profession, A HAPPY NEW YEAR.

THE Medical College of the State of South Carolina, (at Charleston), does not, as was stated publicly, on the authority of the writer. grant *any* indulgence to medical students who declare, "IN GOOD FAITH," that they are unable to pay the fees demanded. This Institution differs, in this respect, from all other medical colleges at the South. If the writer has done an injustice to this college, he makes this public reparation.

GALLERY OF DISTINGUISHED PHYSICIANS.—There will be published, in each number of the Journal, the portrait of a distinguished surgeon or physician, with a sketch of his life. These likenesses could not be procured for less than twenty-five cents each, and will alone be worth, each year, more than half of the amount paid for subscription to the Journal.

THE Dental Cosmos was incorrectly included in the list of journals, whose editors have recently failed to give due credit for articles published.

LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.—At a recent meeting of physicians in Louisville, this society was organized. The constitution and by-laws adopted, were presented by Dr. S. P. Breckinridge. The officers unanimously elected, were nominated by a committee appointed for the purpose—these officers are as follows: Dr. E. S. Gaillard, president; Dr. John Thruston, vice president; Dr. S. H. Hornor, recording secretary; Dr. T. J. Jenkins, corresponding secretary; Dr. T. P. Satterwhite, treasurer. The roll of the society is rapidly increasing and the meetings have been pleasurable and profitable.

THE editor acknowledges, with pleasure, the receipt from Sir Thomas Watson, (London), of Dr. Markham's work, "BLEEDING AND CHANGE OF TYPE IN DISEASE." In this work there is a "letter" from Dr. Watson on the subject mentioned, and as, in a private letter just received, he states that the views therein given are now entertained by him, this "letter" will be published in the Journal for February.

THE editor has received, from the best manufacturers, several of the most complete steam atomizers. They are to be sold, here, at the price demanded at the manufactory. The new and improved atomizer of Messrs. Codman & Shutleff is admirable, and accomplishes thoroughly all that can be desired.

THE editor has succeeded in engaging again a Paris correspondent, whose first letter appears in this number.

A NOTICE of the life and death of Prof. A. E. Peticolas, will appear in the February Journal.

BOOKS AND JOURNALS RECEIVED.

Bleeding and Change in Type of Disease: the Gulstonian Lectures. By W. O. Markham, M.D., F.R.C.P. London: John Churchill & Sons, New Burlington street. From Sir Thomas Watson, London, Eng.

Cardiac Murmurs. By J. R. Leaming, M.D., Physician to St. Luke's Hospital, attending Physician to the Demilt Dispensary, etc. Compliments of the author.

Physician's Medical Compend and Pharmaceutical Formulæ. Compiled by Edward H Hance, Philadelphia. Published by Hance, Griffith & Co., 1868. From the Publishers.

Introductory Address delivered before the class of the Medical College of Ohio, on Tuesday evening, October 6, 1868, by Theophilus Parvin, M.D., Cincinnati. From the author.

Publications of the Massachusetts Medical Society, Vol. II, No. 3. Boston: David Clapp & Son, 1868. From Society.

The Dublin Quarterly Journal of Medical Science. No. XCII, November, 1868.

Paul F. Eve.

Hart & Mapother Lith. Louisville, Ky.

THE RICHMOND AND LOUISVILLE

MEDICAL JOURNAL.

Vol. VII. FEBRUARY, 1869. No. 2.

ORIGINAL COMMUNICATIONS.

"Qui Docet Discit."

Art. I.—A Lecture on the Management of Women after Parturition. By T. Gaillard Thomas, M.D., Professor of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, New York.

It has been stated by reliable British writers, that about 3,000 mothers die in child-bed annually in England and Wales, which presents us an average of nearly eight deaths daily. The loss of life occurring every year from causes connected with the parturition in these two countries alone, will thus be seen to be very great. Let it be multiplied by thirty, the number of years during which one generation of women ordinarily proves fruitful, and the number swells to the alarming proportions of 90,000.

This large number of fruitful women are lost in an area of territory which is inhabited by only about 20,000,000 of people. Allowing the same death rate for France, Prussia, Austria, Ireland, Scotland and the United States, which together number approximatively 130,000,000 inhabitants, and the proportion of deaths occurring annually would be 19,000; that occurring in thirty years, 570,000. When it is borne in mind that I have taken into consideration only a small proportion of the civilized world, it will be readily conceded, that in all probability, if the computation be made to apply to the whole of it, 1,000,000 women are lost during every generation, from causes connected with the perpetuation of our species.

In this calculation there is nothing strained or exaggerated. On the contrary the deductions drawn from our premises, are fully within the bounds of probability. That they are startling, when thus placed before you, does not render them the less truthful.

But why are these statements startling? Were we computing the havoc committed by cholera, yellow fever, typhus fever, or even by diseases of less grave character, as for example, pneumonia or dysentery, we should be prepared to hear such assertions without surprise. The reason is this—the dangerous affections just mentioned, are morbid processes, rebellious against nature's laws, and tend to death—the process of parturition is a physiological function entirely in accordance with healthy action, and with a well pronounced tendency to the increase and not to the diminution of life. In no physiological function is there a tendency to the destruction, but always to the preservation of life; the function of parturition presents no exception to this rule.

You must not understand me as even hinting that any amount of knowledge or caution on the part of the obstetrician can ever do away with this mortality entirely. As in perfect health, strong men are daily stricken down by disease, so must delicate women be, after the performance of a great function which taxes all their powers to the utmost. But this I do say most unhesitatingly and decidedly, that by a careful study of the etiology of the diseases which follow labor, the mortality of the lying-in room may be greatly diminished. The same remark might be made in reference to the mortality attending all diseases, but I make it here in no such general way. I wish to be understood as asserting my belief, that many of the gravest sequelæ of labor are due, not to any condition inherent to that process, but to mismanagement, which absolutely tends to develop what it is our sincere wish to avoid.

Many an obstetrician, who studies with assiduity, the rules for the conduct of a labor to its conclusion, fails to investigate those influences which subsequently develop and produce dangerous consequences. Many a practitioner who strives faithfully to understand the pathology of puerperal fever, phlegmasia dolens, and similar affections, loses sight of the fact that these disorders are merely results of certain adverse influences which might, perhaps, be avoided or suppressed if proper, precaution were observed. And lastly, the belief is too prevalent, that the duties of the obstetrician cease with the birth of the child, and that those of the nurse, then replace them. This functionary is too often left to manage the lying-in room, according to her ideas and allowed to believe that she, and not the physician, is responsible for the patient's safety.

To obviate the tendency which exists to certain sequelæ of parturition, the deleterious influences attendant upon that process, must be carefully investigated—a subject which will now claim our attention.

The causes of post-partum diseases may be profitably divided into predisposing and exciting. Those which belong to the first category may thus be tabulated:

Predisposing Causes of Puerperal Diseases.—The blood state of pregnancy; the nerve state of pregnancy; the functional diseases of pregnancy; the state of the genital organs following parturition.

The Blood-state of Pregnancy.—It was formerly supposed that the blood of the pregnant woman was richer than that of the non-pregnant, that a state of plethora attended utero-gestation, and that for this reason there existed a marked tendency to acute inflammation after delivery. With our present knowledge, it is difficult to conceive how it could ever have been supposed, that a woman, whose stomach had been greatly disordered for nine months, who had vomited almost constantly for four, and whose whole system had been liable to functional disorders should have a richer blood, than when she, in perfect health, was taking regular exercise and eating with a relish. The fact that such blood is loaded with fibrin which was regarded as an element of nutrition, was brought forward to substantiate this view. But this argument falls to the ground, under the new light thrown upon this substance by Simon, Beale and other physiologists. They have established the fact that fibrin, which exists in healthy blood only in the proportion of two parts in one thousand, and steadily increases under the influence of starvation or venæ-section, is an excrementitious, effete substance on its way to the emunctories to undergo elimination.

It is now generally admitted, that during the latter months of pregnancy the blood is altered, as follows: it contains fewer corpuscles, more fibrin and more water than normal blood. The blood-state of pregnancy is, in other words, one of hydræmia and hyperinosis, and not of plethora.

When an excess of fibrin and of water exists in blood, such blood is peculiarly liable to undergo what is called "sepsis," (a species of fermentation or putrefaction) to give rise to thrombosis or coagulation and to ooze through the walls of the blood-vessels in what are called serous effusions. It is this blood-state which renders the pregnant woman so dangerous a subject for any acute inflammation, as for example, pneumonia, pleurisy or bronchitis, and more especially for zymotic diseases, as variola, scarlatina, typhus, or even rubeola. A prognosis which would apply to these affections in a non-pregnant woman would not be safely relied upon here. The hydræmic and hyperinotic blood of pregnancy readily undergoing putrefaction, coagulation and effusion, alters the whole phase of the case, and admonishes us to dread the most rapid and serious morbid developments. It is this state which predisposes the patient to post-partum trouble, and causes the disorder then excited to run a rapid and dangerous course.

The Nerve-state of Pregnancy.—The process of utero-gestation exerts an unquestionable influence upon the nervous systems, both ganglionic and cerebro-spinal. A woman is often irascible, moody and unreasonable during pregnancy, when in the non-pregnant state she is the opposite of all these. Great mental depression often exists without cause, and even insanity developes so often, as to be recognized as one of the sequels of parturition. The alteration taking place in this part of the system renders the woman liable to disease, and intensifies any morbid action which may affect her.

The Functional Diseases of Pregnancy.—Certain functional disorders frequently develop themselves during pregnancy; among these, appear most prominently, puerperal nephritis, which causes poisoning of the blood by the elements of the urine; dyspepsia, often of an aggravated character; torpor of the intestines; and impeded portal circulation. Besides these, there are others, but all that I desire to do is to draw your attention to a few examples and to state that they often predispose to diseases which although, perhaps, not directly due to them are remotely their results.

The State of the Genital Organs following Parturition.—A person whose blood has been thus altered, whose nerve state has been impaired and whose system has been further depreciated by some functional derangement which has lasted for months and interfered with assimilation, will, if called upon to go through a great amount of muscular effort, be extremely liable to fall a prey to disease. The parturient woman is still further exposed. As the uterus contracts after expulsion of the placenta, we have the uterine walls in the following condition. Where the placenta was attached, a raw exposed surface is left, upon which open the mouths of uterine sinuses which formerly communicated directly with the placenta. The rest of the surface of the uterus has been, for many hours perhaps, firmly pressed against the irregular body of the child after the escape of the liquor amnii, and is heated, chafed and congested, while the fibres of the os have been slightly torn, as the head of the child passed through to escape into the vagina. The vagina has been pressed against some part of the bony wall of the pelvis, its mucous membrane has been irritated, like that of the uterus and the perineum, or at least the fourchette has been, perhaps, more or less lacerated. These conditions render the woman peculiarly liable to mucous inflammation, to phlebitis, or to septicæmia from absorption of ichorous material which flows away from the uterus.

The woman, thus predisposed to disease, is severely taxed during and after labor by a number of influences which we many tabulate as exciting causes.

Exciting causes of Puerperal Disease.--Fatigue; pain; loss of sleep; want of food; loss of blood; retention of animal matters; imperfect performance of third stage of labor; contagion; foul air.

Before proceeding to the consideration of each of these influences, let me place before you, at a glance the list of the affections which occur most commonly in the lying-in chamber and see whether the causes which have just been given, do not account for all of them.

Most common Puerperal Diseases.—Puerperal fever, phlegmasia dolens, puerperal mania, puerperal convulsions, pyæmia, mammitis.

What is called puerperal fever consists in a septic endometritis; a state which has been likened to an internal erysipelas. This results in a direct passage of the disease to the peritoneum through the fallopian tubes; inflammation of the lymphatic vessels which ramify under the uterine mucous membrane, or angeioleucitis; or in phlebitis arising in the veins whose mouths open on the uterine surface. This disorder, akin to erysipelas, hospital gangrene and typhus, is excited by influences which depress the vital forces and poison the blood.

The pathology of phlegmasia dolens is regarded by the best modern authorities, as this: a thrombus or plug of coagulable material forms in the mouth of one or more of the vessels which formerly supplied the placenta, but now are left open upon the uterine wall by removal of that organ. This plug may go on growing, until it so far progresses, as to shut up the vessels leading from below and act upon them like a ligature, or a portion of such a plug may be displaced and passing from the uterus become impacted, so as to shut up a vessel which is concerned with return of blood from the extremity of the body. Or again, the plugging of the vessels may be due to thrombus, which forms as a consequence of uterine phlebitis. It is needless to do more than point out the fact that retention of a portion of placenta, the existence of some contagious element which excites phlebitis, or an imperfect performance of the third stage of labor would excite this affection. What I have said of phlegmasia dolens might, with propriety, be repeated in reference to phlebitis and puerperal pyæmia.

Puerperal mania is notoriously a consequence of exhaustion, loss of sleep and want of food, more especially if these act upon a patient in whom a marked predisposition exists to the toxæmia, resulting from puerperal nephritis. The same remark applies to mammary abscess which generally springs from debility and depraved blood-state.

All that I have intended to accomplish by this digression is to point out the direct relation, cause and effect, existing between the most prominent and dangerous diseases of pregnancy and the unfavorable influences which I have tabulated as exciting causes, and which, to a greater or less degree, are present after every labor. I shall now proceed to demonstrate to you that the extent to which they exist, will depend in a great degree upon the management of the case by the obstetrician, and that some of them may be entirely removed, by an ordinary degree of attention. Let us take up each in turn.

Fatigue.—The process of parturition is divided into three stages. The first, beginning with the first uterine contraction, ends with full dilatation of the os; the second begins at this time and ends with expulsion of the child; the third begins at this time and ends with the expulsion of the placenta and the firm and complete closure of the uterus. The first is accomplished under the influence of the ganglionic nervous system, a system which never tires, let the demands which are made upon it be ever so great or prolonged. Hence the maxim of Denman; before the rupture of the bag of waters, there is no danger to mother or child, except from convulsions or hæmorrhage. The second stage is under the control of the cerebro-spinal system which becomes rapidly exhausted. The third is again brought to a termination, by the ganglionic system. During the first stage, the muscular fibre of the uterus alone acts. No striped or voluntary muscle is in action and the pain which is experienced can be borne with ordinary fortitude. But in the second stage, muscular efforts are very great, the striped or voluntary muscles are involved, and the fatigue which results, is always quite marked, and is sometimes excessive. Such efforts as a woman makes at these times would tire even a trained athlete; how much more must they affect one who is not only not accustomed to them, but never before made an exertion which compares with them in violence.

We wish to avoid, if possible, the exhaustion which must follow the efforts of parturition. When the second stage begins, it is impossible to say how long it will last. It may continue for twenty-four hours. If so, we desire to husband our patient's forces, in order that they may be sufficient for the accomplishment of expulsion of the child.

The fatigue resulting from labor, should, for these reasons, always be prevented, unless some special contra-indication exist. There is but one way in which this can be accomplished, and that is by the administration of chloroform or ether. There are many cases, in which anæsthetics delay progress, by diminishing the frequency and violence of contractions. These are exceptions. The rule should be to employ an anæsthetic in every case of labor, *during the second stage*, unless some contra-indication exists. After a delivery, under their influence, patients recover more rapidly, are freer from complications and show fewer signs of prostration.

Pain.—The "pains of childbirth" have been everywhere, in every land and in all times, referred to as typical of the extremity of physical agony. That such a degree of suffering, so long countinued, as it is in the majority of labors, should prostrate the woman who bears it, no one who has seen the effect of an hour of pain in a man who has passed a biliary calculus, can for a moment doubt. During the second stage of labor, pain is so severe, that an anæsthetic not only pleases the patient, by giving immunity from suffering, but increases her chances of rapid recovery, by avoidance of the exhaustion which suffering induces.

But not only does the parturient woman suffer pain in the time of labor. After expulsion of the placenta, small clots form in the mouths of the utero-placental vessels, hang, like so many leeches, into the uterus and excite contractions, which receive the appellation of "after-pains." These often last for twenty-four hours, prevent sleep and tire out the patient. The less firmly a uterus contracts, the more severe are the after-pains, for firm contraction expels these clots, and thus the cause of the painful contractions disappears. For this reason, after first labors they do not occur. The hint thus given us by nature may be made profitable, by causing firm uterine contraction, by administration of a full dose of ergot, just after or during the third stage, in every case, and this I urge you to do. Ergot now given never does harm, fulfills an indication of great importance and guards against the liability to hæmorrhage. Should this means fail, let opiates be given before the obstetrician leaves the house. A very excellent combination which I habitually employ for this purpose, is the following:

℞.—Chloroformi, (Squibb) ʒijss; morphiæ sulp., gr. ijss; syrupi, ℥ij; *M.* A teaspoonful every hour till relieved.—T. G. T.

Loss of Sleep.—Nothing exhausts the nervous system more than loss of sleep. During our waking hours the brain and cerebro-spinal system of nerves are continuously at work; it is during sleep that they are recruited. While labor lasts, even if it continues for forty-eight or fifty hours, pain and mental anxiety keep the patient awake. If, at the end of the process, she were always allowed to enjoy that of which she stands so much in need, all would go well, but three influences, either separate or combined, often prolong the unfortunate vigil; these are after-pains, nervous exhaustion and a crying child. No one who has had much experience in the lying-in room will deny this assertion. Strange as it may appear, even in the highest walks of life, it is not rare to see mothers kept awake, night after night, by a sleepless child, the idea occurring to no one that the child should be removed to another part of the house. I have mentioned the methods calculated to prevent suffering from after-pains; when nervous exhaustion exists to such an extent as to produce a sort of coma vigil, we have a sovereign remedy in opium, and the obstetrician should not content himself with removing all the obstacles to sleep, he should procure it by the most decided means, not for the comfort, but for the safety of his patient.

Want of Food.—If any one should desire to test the effect of fasting, let him go absolutely without food for twenty-four hours, and he will learn that it produces exhaustion. Should he add to fasting steady and violent muscular effort during its continuance, he would find that the resulting exhaustion would be much greater.

It once fell to my lot, when in vigorous health, to walk thirty-six miles in twelve hours, being meantime entirely without food. At the end of the journey, I was forced to lie upon the ground to avoid syncope, which almost overcame me. If this be the effect of muscular effort, combined with fasting, upon a healthy, strong man, what must it be upon a woman whose blood-state is depreciated and who, at the end of her efforts, loses from a pint to a quart of blood!

During labor, the woman usually eats nothing, although constantly taxed by repeated muscular efforts, and at the termination of the process she is prostrated in consequence. Now mark the course which is usually pursued by the nurse, often without the knowledge, but sometimes with the indorsement of the physician in attendance. The nurse has been taught two maxims as to the dangers of parturition; first, that stimulating food excites "inflammation;" second, that "cold" produces puerperal fever, milk leg, broken breast, etc., etc. She, therefore, starves the poor exhausted patient to the last limit which her system will bear. Her line of argument is this: here is a woman whose blood is rich, whose system is "overheated," whose general state requires reduction; fuel is present; food will be the spark which will ignite it. She consistently adopts this bill of fare; for the first day, tea, toast, bread, (with very little butter which is "heating" or "bilious"), panada or arrow root. On the second or third day, a generous nurse will sometimes give a very weak broth, under the name of beef tea, chicken or mutton broth, and after the fourth day, allow a slight improvement in diet. It is a notorious fact, that it is usually within these four days that the gravest of the disorders of parturition develop.

What would be thought of a surgeon who adopted such a diet in a man, who had exhausted his power and depreciated his blood-state by four or five months of irregular living; upon whom he was called to operate by amputation for a compound fracture of the thigh? Let the obstetrician imitate the surgeon and sustain his exhausted patient, by means calculated to restore the depressed nervous system, renovate the impoverished blood, and in this way prevent the asthenic diseases of parturition, which are closely allied to erysipelas and typhus.

During labor, milk, strong beef tea, or a gruel made of farina, oat meal or Indian meal, should be pressed upon the patient in small quantity every third or fourth hour.

Should it be vomited, no evil will result; should it be retained it will accomplish good. After delivery, let the patient have green or black tea with toast or bread and butter, or in place of these, a bowl of strong beef, mutton, or chicken tea. During the rest of the day, she may have as much milk, animal broth, gruel or panada as she desires. It is better to avoid solid food at this early period, for fear that the stomach would not digest it. On the second day, in addition to what has been mentioned, the patient may have a bit of steak, chicken or mutton, and, should she desire it, on the third or fourth day a small amount of claret, light sherry, or champagne may be allowed.

By the use of generous diet, not rendered improper by large amounts, indigestible articles, or stimulants of exciting character, you will find your patients rally from the depression of parturition with a surprising rapidity.

Loss of Blood.—A woman usually loses in a natural labor from eight to sixteen ounces of blood. This recurring after action of the exhausting influences which have been mentioned, is often felt very seriously. It is this combination of evil influences which sometimes destroys life, under the name of "shock." That a certain sanguineous loss must occur is inevitable. It is, however, the duty of the physician to see that no more is lost than the smallest amount, which suffices for the accomplishment of the process.

Retention of Animal Matter.—The peculiarly exposed condition of the uterine and vaginal surfaces, after expulsion of fœtus and placenta, has been already cited as a predisposing cause of post-partum disease. The raw, uncovered state of the placental site, with the uterine vessels opening upon it, their mouths filled with coagula and their closure depending upon these and compression from uterine fibres, offers a surface well fitted for absorption of putrescent animal matters left in contact with it. If not absorbed here, such matters undergo liquefaction and passing down through the vaginal canal, bathe any surface which has been exposed by rupture. You all know the effect of cutting the finger in a dissecting room and allowing absorption of decaying animal matter to occur. Angeio-leucitis, commonly supervenes. Why should it not occur alone or accompanied by phlebitis in the parturient woman who presents both elements necessary for its supervention—solution of continuity and contact with putrescent animal matter? It unquestionably does occur and is sometimes a cause of death after delivery. It is to me not a matter of surprise that it occurs; my astonishment is excited that it does not more frequently do so.

To avoid the dangers arising from this cause, I would recommend to you three plans:

First, always remove the placenta and membranes slowly and with great caution that not a particle of either be left in the uterus or vagina.

Second, cause complete performance of the third stage of labor, in order to prevent retention of clots, which may become putrid.

Third, always direct the nurse to keep the vagina free from putrescent matter, by syringing freely with warm water every twelve hours.

The direction to twist the placenta, so as to make a rope of the membranes, and thus give them strength sufficient to resist traction exerted for their removal, is, I think, a very bad one. It gives a false security, does not supply sufficient strength, and often results in retention of a portion left in spite of the obstetrician's care. In place of it I advise this plan: never remove the placenta from the vulva until you know, by touch, whether a portion of membrane runs up into the uterus. If it does so, pass two fingers to the os and by them gently draw upon it, until it be felt to come out entire. While traction is being made pressure should likewise be exerted upon the fundus. I have often let ten or fifteen minutes pass in these efforts, rather than allow even the smallest piece of membrane to remain.

After removal of the placenta, it should always be carefully examined, when the obstetrician is at leisure.

Syringing the vagina with warm water to which a small amount of Labarraque's solution or carbolic acid has been added, can never do harm. It always secures cleanliness, proves agreeable to the patient and destroys the unpleasant odor which otherwise is very apt to exist around the bed.

Should it be absolutely known that a piece of placenta or membrane is retained in utero, which cannot be removed, and the patient give evidence of septic absorption, a large gum-elastic catheter should be carried to the fundus uteri and the disinfectant solution be made to bathe the whole uterine cavity. There is really no danger in this procedure, unless great force be applied to the syringe, so as to send the fluid through the fallopian tubes, which may readily be avoided.

Imperfect Performance of the Third Stage of Labor.— You will recollect that I have urged you not to regard the third stage of labor as being accomplished, when the placenta is expelled. This stage consists in the production of firm and complete uterine contraction. True, as this occurs the placenta is expelled, but its expulsion is a result of and does not constitute the completion of that stage. The placenta may be expelled in five minutes after birth, and yet the third stage of labor not be accomplished for five hours. Always see that the uterus, which has by clonic contraction expelled the child and then the placenta, has closed its cavity completely by clonic contraction, before you feel that your task is done or the process of parturition is completed.

I will not detain you longer upon this point, than to make a mere mention of the evils which may result from non-performance of this stage. Hæmorrhage may at once occur; the utero-placental vessels, not closed by contracting fibres, may be more or less filled by coagula and extension, migration or absorption of these may create thrombosis, embolism, septicæmia, or phlebitis; clots or pieces of placenta remaining may cause uterine angeio-leucitis, endometritis, or absorption of septic matter by wounds in the vagina.

The possibility of these evils should make the obstetrician careful to see that complete, firm and persistent closure is effected by manual compression, after the passage of the child until the bandage is applied; by the invariable administration of ergot and systematically fostering and not depressing the patient's strength, especially for the week or ten days immediately following delivery.

Contagion.—That there is a peculiar ærial influence, a "pestilence which walketh in darkness," which produces erysipelas, hospital gangrene and similar affections, no one can dispute. As this influence exerts its baneful effect upon the stump left after amputation, so may it do so on the bared uterine wall and produce similar results, which, in turn, go on to the creation of peritonitis.

Much may unquestionably be done to avoid this result, by removal of the woman, expecting confinement, from the locality in which the ærial poison had demonstrated its presence, scattering the patients of lying-in hospitals, and preventing contact with persons, who in their clothing, might convey it to the lying-in room.

Besides this poison, we know that there are others which excite the kind of inflammation to which I have alluded. Among these are decaying animal matters conveyed to the patient's body upon the hands of the physician or nurse, or in the air of the room. To avoid these, the room of the sick woman should be kept scrupulously clean; napkins saturated with lochial discharge and all alvine or vesical excretions should be at once removed.

The obstetrician should never expose his patient to the danger resulting from vaginal "touch" by him, if he have been recently engaged in making a post-mortem examination, dressing a wound affected by erysipelas or hospital gangrene, or indeed, doing anything which could subject the genital organs to a septic influence. Whether the hands have been employed in such a way as to have been contaminated by putrescent material or not, they should never, unless absolute necessity require it should be avoided, be introduced into the uterus for removal of the placenta.. Introduction of the hand into the vagina is a matter of no moment, except in so far as it gives pain. Introduction of the hand into the uterus is always attended by the danger of endometritis, and should never be resorted to, except for good cause.

Foul Air.—I told you that nurses are commonly impressed with the idea that post-partum diseases are often the results of exposure to cold. To avoid such exposure they often shut up every crevice by which fresh, pure air can enter the chamber. In consequence, the atmosphere becomes loaded with carbonic acid gas, the exhalations of the bodies of those in the room, one of whom is a young infant, from whom alvine evacuations are constantly occurring, and worse than all, with decaying animal matter, which is steadily pouring from the vagina of the mother. The air of the lying-in chamber should be as free from poisonous elements as its floors and walls; the temperature should be maintained at 70°; and all drafts or currents of cold air should be avoided.

When the dangers attending a process, which is commonly, even by professional men, unreflectingly regarded as one almost entirely free from risk, are thus analyzed, and presented a very illogical argument, a species of "reductio ad absurdum" is often resorted to in order to meet the statements advanced. Such an one as the following I have heard proposed in reference to the subject of which I have just treated. "If all these dangers are real, how is it that *all* women do not die in confinement?" My answers to the question are these: 3,000 women do die *annually* from this cause in England and Wales alone, and probably 1,000,000 die in one generation from it in the civilized world. No one doubts the risk of being injured in a hard fought battle. The influences which may cause death are numerous, yet all the men who enter one are not killed or wounded, nor are one-fifth nor even one-tenth injured in the slightest degree.

He who would avoid a danger must fully appreciate its character before he can begin to strive against it, and he who most intimately understands its nature will most successfully contend with it.

ART. II.—THE PHYSIOLOGY OF THE CEREBRAL CIRCULATION, CEREBRO-SPINAL FLUID AND CEREBRAL MOVEMENTS. By STANFORD E. CHAILLÉ, M.D., Professor of Physiology, etc., Medical Department University of Louisiana.

Few subjects teach better than the history of the cerebral circulation, how readily false conclusions can be drawn from well-established physical laws; and with what forcible ingenuity, and for how long a time these false conclusions can be maintained in opposition to the most familiar, but adverse facts. It was long taught that, since the cranial, unlike other cavities, is an air-tight incompressible box, filled with incompressible contents;

and, since such a box must always contain the same amount; must alwas be full, or failing this, produce that physical impossibility in the animal economy, a vacuum; therefore, that the amount of blood, one of the cranial contents, must remain always the same and could not, by any physical possibility, vary.

A half-dozen autopsies ought to have sufficed to have proved that there was in this, *therefore*, faulty logic somewhere. But they did not and the *true facts* were rejected until the error in the *false conclusion* was pointed out. It was at last found out that there are three important cranial contents; that, besides brain and blood, there was another fluid, and that this cerebro-spinal fluid played so important a part in the cerebral circulation that physiologists were enabled to amend their theory and make it accord with the facts. These still teach that the *total* amount of contents in an air-tight box, as the skull, cannot vary; but that the *relative* proportions of the different contents can and do constantly vary. One may be augmented, provided another is correspondingly diminished; two even may be augmented, provided the third is as much minus, as the sum of the two others is plus. This is exactly what occurs in the brain, as may be daily seen in the dead house. There, in ordinary cases, the brain is found little altered in size, but the quantities of blood and fluid are seen to be constantly present in varying amounts, which are in inverse ratio to each other. The more blood the less fluid, and vicê versâ. So that the presence of an unusually large quantity of normal fluid in the ventricles and around the brain simply indicates anæmia of the brain, whilst an unusually small quantity is equally indicative of hyperæmia. If the brain be diminished in size, as in alcoholic atrophy, there be an unusual quantity of both blood and fluid; so too, if the cranial cavity be enlarged, as in hydrocephalus, the brain maintaining its normal size, then too, both blood and fluid, may be in excess. But, *in these two conditions only*, can there be an excess of both. It is also worthy of remembrance, that causes operating after death may modify the respective quantities of blood and cerebro-spinal fluid found present within the skull; and indicate conditions different from those existing during the life of the subject examined. All admit these facts, but let it not be supposed that this varying quantity of cerebro-spinal fluid in the brain is only a pathological condition. In the cases mentioned, it is but an excess of a physiological function which is in constant and momentary action. So that this history of the cerebral circulation first gave a definite idea of the physiology of the cerebro-spinal fluid, and is a proper introduction to its consideration, and to that of the cerebral movements, in whose production it plays a very important part.

The cerebro-spinal is a serous fluid, which, however, in its normal condition lacks one of the principal characteristics of other serosities. It does not coagulate on the application of heat; owing to the absence of albumen, or to the very minute quantity it contains. Robin teaches that it is the only normal serosity which is constantly present, and that it is the most abundant of all. Its quantity is very variable, and it is readily absorbed and reproduced; depending on the degree of pressure to which it is subjected. Its average quantity is estimated at about two ounces, but in cases of cerebral atrophy as much as twelve ounces have been collected; and, in a case of fractured skull with laceration of the membranes, Bernard states, that owing to its rapid reproduction when lost, over two pints flowed out in twenty-four hours. In this case the fluid flowed in expiration, thus indicating that it was subjected then to augmented pressure. Magendie, led by erroneous interpretation of his experiments, taught that its removal produced serious symptoms, but Longet proved this conclusion false, pointing out the cause of the error, and Bernard teaches that there are no cerebral symptoms whatever, unless the fluid is sucked out and by this means removed without admitting air to supply its place. In such cases the animal is enfeebled, and sometimes falls as though struck with paralysis; and a post mortem examination shows the spinal membranes and cord ecchymosed and swollen. These lesions are due to suction. The escaped fluid producing a vacuum which sucks the blood *into* the spinal vessels swelling the cord, and *out* of them producing ecchymosis. Such are the facts well established by vivisections. To which may be added an illustrative and apparently contradictory case, made known to the author by a very competent observer. A benign tumor in a perfectly healthy child was associated with spina bifida. In removing the tumor, the spinal membranes were unintentionally opened—the fluid flowed freely and in very large quantity, notwithstanding the resort to every surgical expedient to arrest it. Within thirty-six hours the child died with the symptoms of cerebral congestion; and it was not possible to assign its death to any other cause than the loss of the cerebrospinal fluid, which, from the nature of the disease, must have been present in an unusual quantity. I am not disposed to dispute Bernard's facts, nor the facts stated in this case. Therefore, it is necessary to grant, whether explicable or not, that circumstances must have existed which prevented an admission of air as free as was the flow of the fluid. Another error committed by Magendie, as to this fluid, was in locating it in the arachnoid sac, thus making it bathe the dura mater, an error which he subsequently corrected. But there are those who remember his first teaching, and forget his correction; which is, that this fluid is only found normally beneath the visceral layer of the arachnoid, and, therefore, between this and the pia mater. This anatomical fact is important, for without it, it would be impossible to understand how it is that the cerebro-spinal fluid is in one continuous sac, as it were. That whilst it is external to the brain, it also passes within the ventricles, and down into the spinal cavity, and is, therefore, readily displaceable. Thus it bathes and supports the whole cerebro-spinal axis externally, and also passes within the brain through the posterior opening of the fourth ventricle. However it should be borne in mind, that around the brain this fluid is in the areolar meshes which connect the arachnoid and pia mater, and, therefore, cannot be as displaceable and communicate as freely with the fluid elsewhere as is the case with so much of this fluid, as is in the ventricles and spinal cavity.

These preliminary facts permit now a consideration of the cerebral movements and the part taken therein by this fluid. The quick, slight pulsation of the brain synchronous with ventricular contraction and the slower, stronger pulsation synchronous with expiration are facts which ordinarily are readily felt and seen when the cranial cavity is not air tight; and in nature's experiment of spina bifida, as in the artificial experiment of exposing the spinal cavity, a bulging out of the membranes is also observable, synchronous with expiration, which, if forcible, notably augments the distension. Though these phenomena occur, without dispute, when the cranial cavity is not air tight; it is very much disputed whether any movements of the brain can occur in the normal air-tight condition of the adult's cranial cavity. The weight of physiological authority, supported by that of most distinguished physicists, bears strongly on the side that in the air-tight cranial cavity, cerebral movements of any kind are physically impossible.

This view is sustained by Longet more fully and ably than perhaps by any other, and his strongest opponent is Richet.

What are the causes of the movements observed when the cavity is *not* air tight? The cardiac pulsations in the brain have the same cause as the radial pulse; the larger relative quantity of blood thrown into the brain, and its difference in texture, account for the pulsation of the brain en masse, as does not so manifestly occur in other organs or parts, but does occur in vascular, pulsating tumors. The arteries are distended with blood by the ventricular impulse, and the cerebral mass they supply is thereby moved. The respiratory pulsations are caused by the influence of inspiration and expiration on the circulation, an influence stronger upon the cranial circulation than elsewhere, in consequence of the peculiarity of this circulation, which the large open non-valvular channels, the venous sinuses, render peculiarly impressible to the influences of respiration. Inspiration, tending to produce a vacuum in the thorax, favors the flow of all currents into it, and, in consequence of the anatomical peculiarity mentioned, adds the force of suction at each inspiration to the vis a tergo of each ventricular contraction in emptying the venous blood out of the brain. Therefore, at each inspiration, the amount of blood in the cranial cavity and brain is at its minimum. Expiration, on the other hand, diminishing the thoracic cavity, impedes the flow of all currents into it and the cerebral sinuses became thereby gorged with blood. The veins leading into the sinuses cannot empty their blood freely, which, however, is still supplied in usual quantity by the uninterrupted action of the heart, and, therefore, these veins must, as well as their supplying arteries, become distended. Thus, at each expiration, the amount of blood in the cranial cavity and brain is at its maximum. The difference between the minimum of inspiration and the maximum of expiration is the cause of that distension of the brain which constitutes the expiratory cerebral pulsation. This distension within the cranial cavity, thus caused, produces pressure necessarily on surrounding parts—on the calvarium outside of the brain, on the cerebro-spinal fluid both inside and outside of it. Therefore, strong expiration may force the cerebral substance out of the open skull and the same pressure forces the movable cerebro-spinal fluid down into the spinal cavity, thus distending its membranes. Such are the phenomena observable and their explanation, when the cranial cavity is not air tight.

Do the same cerebral movements occur, when the cavity is air tight? All grant that in this case like causes exist and like results ensue, so far as the blood is concerned; that it moves just the same, and that its amount momentarily varies just the same. All, also, agree that the cerebro-spinal fluid, especially the intra-ventricular and spinal, is movable, that it is under the influence of a pressure of some kind, which impresses upon it a constant movement of flux and reflux synchronous with respiration. Thus out of the three cranial contents which alone require consideration in this regard—blood, cerebro-spinal fluid and brain—physiologists admit that in the air-tight cavity two do move, vary in their quantity and, therefore, in the space occupied, but contend that it is physically impossible that the third content—the brain—should vary in the amount of space it occupies. For motion, the brain requires space to move in and space can not exist in an air-tight cavity, without the existence of that physical impossibity, a vacuum. Therefore follows that apparently logical deduction, upheld for many years by nearly all of the ablest physiologists, that no cerebral movements can occur in an air-tight cranium.

In my own opinion, the conclusion is illogical and is refuted by both normal and morbid anatomy. The solitary fact supporting the no-movement view, which, in my estimation, requires serious consideration and refutation, is the one established by Bourguignon's experiment to be alluded to. But the facts supporting the movement-view are, in my opinion, so strong that even if unable to satisfactorily explain this experiment, I would still hold to these facts, bearing in mind that this same vacuum question was once before, as has been shown, the pons asinorum, passing which the profession lost itself for years, following a false physical conclusion, deemed impregnable to logic, rather than follow the sole deduction which every day facts clearly pointed out.

But, to the proofs that the conclusion is illogical and refuted by anatomy and pathology. Motion requires space and space does not exist in an air-tight cavity; but most certainly this does not prevent something running in, as a corresponding amount runs out, thus keeping the air-tight cavity constantly full, as physical laws exact. As one increases the space it occupied, the other decreases its space. Augmentation and diminution of the space occupied is motion; and this motion of augmented and diminished size, the brain receives from the varying quantity of blood sent into it, and the cerebro-spinal fluid is present to get in or out of the way as the vacuum or plenitude may require. A body may move not only in situ, as the movements of expansion and contraction, but also from place to place. And whilst the brain has a movement of expansion, no doubt some motion from below upwards is also impressed upon it, by the distension of the large arteries and veins at its base.

In granting, as is universally done, the cranial vessels are momentarily distended, therefore moved in varying degrees, it seems to me exactly equivalent to acknowledging that the brain of which these vessels are a considerable part, is also distended and moved. It is asserted that the brain cannot move, because its motion would cause a vacuum. Now, if motion of the brain every second would cause a vacuum; then motion of the brain continued through hours, days, weeks, however long and slight, would, for identically the same reasons, cause a vacuum. Well, this is physically impossible, say the theorists, and yet, neither they nor any body deny that atrophy and hypertrophy of the brain are well-established pathological facts. How can a brain become larger or smaller without motion in situ? Such brains certainly have moved, therefore, morbid anatomy proves, that, argue as you please about motion in a vacuum, the brain, none the less, can and at times does have a motion of expansion and contraction in the *cranial cavity.* And if it can move, against logic in weeks, why can't it move every second with equal independence? Very surely this does not prove that the cerebral pulsations do occur, but it does prove that motion of the brain can occur in the air-tight cranial cavity; and that these pulsatory movements are not physically impossible, which is the sole reason why it is contended that there are no such movements. The indication of normal anatomy on this point is very decisive. In the cranial cavity is a serous sac, which in every other cavity is recognized as one of bountiful nature's kindly provisions for favoring locomotion. The significance of this fact can be no more ignored, than could be the presence of a muscle in an organ whose functions were being investigated. Physicists may confuse the intellect beyond the ability to reason; but until they have explained the meaning of that serous sac, and the significance as to motion of atrophied and hypertrophied brains, I shall remain convinced that the brain can and does move in the physiological adult's cranial cavity. That these movements may be much less when the skull is closed, than when opened, is probable.

In addition to Bourguignon's, another experiment, that of Magendie, (1842), has a direct and interesting bearing on this subject. Both experiments have been often repeated and verified, but whilst the results are not disputed, the conclusions drawn from them are at variance. Magendie, filling a tube with colored water, introduced it into the spinal cavity. At every expiration the fluid mounted, and at every inspiration it fell in the tube. Which, says Longet, proves that in expiration the cerebro-spinal fluid is ascending to, and in inspiration descending from the brain. Whilst Richet says, it proves just the reverse, that in expiration it is descending from the brain into the spinal cavity and vicê versâ for inspiration. The conclusion of neither is scientifically accurate, for the only correct inference is, that when the fluid mounts in the tube, there is augmented pressure on it; without indicating in what direction the fluid that makes the pressure, is flowing. But when, to this fact, that pressure is made on the spinal membranes in expiration, is added the facts that have been already given, as to the augmented quantity of blood in the brain and the swelling out of the spinal membranes in expiration, there can be but one conclusion as to the direction from whence this pressure proceeds, it must be *from* the brain downwards to the spinal cavity. [Whilst writing this article, a vivisection of an alligator, two feet in length, clearly demonstrated that the pressure was downwards in expiration, and that in inspiration the flow was upwards towards the brain.] Bourguignon's experiment (1839) has served more than all other facts and reasonings to establish the no-movement-view. Longet, and others, regard it as triumphantly conclusive that the brain is unvarying in its size and immovable.

Therefore, as they grant that the blood within the cranium is augmented in quantity in expiration and contend (falsely) at the same time that the quantity of cerebrospinal fluid is also augmented, they are forced to a very unsatisfactory explanation as to what becomes of this excess; which is, that the brain is alternately condensed and rarified, that it varies in mass, (weight), but not in its volume or size. Bourguignon filled a glass tube, having a closed extremity, with water purged of air, attached this hermetically to a hole in the skull, placing the contents of the tube in contact with the contents of the cranial cavity and making the tube itself a part of the air-tight cranial cavity. To the tube was attached a stop-cock, by turning which air could be admitted, and the cranial cavity could be thus, at will, placed in the same condition as when accidents or operations in removing part of the skull, expose it to the air and to our observation. All attest, that under these circumstances, there are no movements in the contents of the tube, unless the stop-cock be turned and air is admitted. In the latter case, the cardiac and respiratory pulsations of the brain at once indicate their power by corresponding movements of the water in the tube. Now, these facts are indisputable and the inference therefore seems irresistible, that, in the ordinary air-tight condition of the adult skull, there are no cerebral movements. Therefore, reasons are imperatively demanded, why, whilst admitting these facts, the conclusion is disputed. The maxim so often in the mouth of my old teacher, Claude Bernard, has here its place:

"Theories, explanations and conclusions, may be and often are false, but facts well observed cannot be; accept then the facts, and if they be at variance with theories and conclusions, change these to suit the facts, and not the facts to suit theories." I accept the fact, but I cannot accept the inference, because it is, in my estimation, contradictory to those facts which have been already cited. The whole question belongs to physics, to whose adepts my own incompetence forces me to leave it; but the explanation, given by Richet, shall be presented in his own words, literally translated: "It then would be necessary, in order that the liquids should oscillate in a tube presenting these physical conditions, that a vacuum should be produced in the cranial cavity, which is physically impossible. The very ingenious experiment of Bourguignon demonstrates this positively, but nothing more. To conclude from it, that in the cranial cavity no *displacement* of fluid is affected, and that the brain remains perfectly immovable in its bony box, would be an unjustifiable inference." Repeating and confirming Bourguignon's experiment, he says that, though all oscillation in the tube was absent; there, nevertheless, seemed to be cerebral movements synchronous with respiration. But though this explanation should need explanation and were far more unsatisfactory, I should still remain convinced that the cerebral movements can and do take place. That in these movements the spinal cavity plays the part of an escape pipe to the cranial cavity and that the cerebro-spinal fluid is a compensating balance to the intra-cranial blood and the cerebral movements caused by this blood. Therefore, I believe that there is an antagonistic connection between the capacity of the ventricles and the quantity of blood which, by expiration, is detained in the cranial cavity, and that these ventricles and the cerebro-spinal fluid passing and repassing from them to the spinal, rather than to the cranial cavity, have thus a far more important physiological significance than is generally assigned them. A comparison between the amount of blood detained in the cranial cavity, by expiration, and the amount of fluid which the ventricles can contain, tends rather to sustain than refute this view. True, the estimates of both can be but approximative, yet even these may serve to give at least "a smell at the truth." Say the left ventricle discharges at each contraction four ounces of blood and that one-fifth of this goes to the brain. Then, since when expiration is not exerting its influence the blood flows out as freely as it enters, there could be no notable accummulation of blood in the brain, (not enough to produce the respiratory pulse,) except during the time of expiration one to two heart's beats. This one to two heart's beats would add from less than one to one-half tablespoonful of blood to the quantity in the cranial cavity.

The capacity of the ventricles is certainly equal to this and nature has provided, at the posterior part of the fourth ventricle, a small but adequate hole of communication with the spinal cavity for the passage and repassage of this amount of fluid, and has also provided the necessary quantity of fluid. From the facts and views stated, it follows that one at least of the functions of the ventricular cavities is to furnish space for movements of the brain, providing means for the entrance and exit of a fluid which, by its passage out, relieves the brain of that pressure which the blood at its maximum expiration would otherwise exercise upon it; and by its passage back and into these cavities responds to the suction force produced by that effort to cause a vacuum, which a minimum quantity of blood in inspiration tends to produce.

Art. III.—Aphasia. By Prof. S. M. Bemiss, M.D., New Orleans, Louisiana.

The discussion as to the propriety of applying the term aphasia to designate a distinctive disease, rather than a mere symptom, is now pretty well settled in the affirmative. The symptoms are sufficiently uniform to justify authoritative diagnosis in regard to the locality of the lesion, however various the morbid processes may be which determine them. In a very great majority of the cases collated to this period, it has been found associated with right hemiplegia, and in a still greater proportion of those cases in which autopsies have been made, lesions have been discovered involving the third, or inferior frontal convolution of the left hemisphere and portions of the brain in immediate proximity to the insula of Reil. It has thus occurred that the term "aphasia" (loss of speech) from having been at first employed to denote a prominent symptom, is at this time understood to imply loss of speech from disease affecting very restricted and assumably determinable portions of the cerebral tract. All cases of loss of speech from other than cerebral causes, are excluded from the compass of this definition. It may likewise be added that in the present application of the term to define an individual disease, certain examples of loss of language arising from other causes are also excluded. For instance, that general defective cerebral integrity which produces complete idiotcy, produces at the same time complete aphasia, or loss of speech; yet, in exact medical literature, cases known to be due to this cause are not usually embraced in the term aphasia.

After a recognition of the claim of aphasia to become a substantive member of future nosological arrangements, we naturally inquire in regard to its essential pathology and objective points of medical study.

In a majority of cases, we may feel assured that more or less permanent structural changes have eventuated in the aphasic regions of the brain, and that thus, in the language of Broca, there is the loss of a faculty commencing at the very point, where the exercise of the faculty has its seat and origin. But some cases of aphasia are of ephemeral duration; others so eccentric in origin and manifestation that we feel warranted in calling them hysterical. We must, therefore, assume that some cases of aphasia have their origin in cerebral incompetency of such transient duration, that we cannot ascribe it to structural changes, which, at least, would be susceptible of demonstration upon autopsy.

The discussion as to whether aphasia, in its psychical aspect, is not merely defective memory of words, is neither of practical utility nor capable of being prosecuted to positive conclusions. Some cases seem clearly due to this cause, as denoted by the fact that such patients use words repeated in their hearing, with unquestionable appreciation of their proper application. In another proportion of cases, the patients are not able to speak or write one word, either spontaneously, or by imitation, or instruction. In other cases, it has been referred to forgetfulness of the mode of using the organs of articulate speech; being therefore analogous to those cases of muteism which often follow acquired deafness. If such defect were the only one, capacity to communicate by writing, or to spell by signs, should be retained.

Dr. Popham, in an excellent article upon aphasia, in the Dublin Journal, seems to me to have elaborated the true doctrines of the pathology of the disorder. The "executive processes of the faculty of speech are both psychical and somatic," and therefore a defect of this psychical part of the process, or a break in its connection with the somatic, may destroy power of speech, anterior to the delivery of words to the organs of articulation for utterance. In one sense of the expression, it is absurd for a physician to attempt to contemplate a disease of an intellectual faculty pure and abstract from bodily disorder; in another sense, it is presumable for us to speak of the psychical pathology of aphasia, as we speak of prescribing for a brain which may present as few points for objective observation, as the most obscure case of aphasia. There is no violence done to the strictest rules of physiology or pathology, in supposing that the line of connection between psychical and somatic, the will and the mechanism, may be broken by disturbance of nerve communication between the ganglia of intellectual thought and the ganglia presiding over motor influence, and yet, that both systems, may remain in comparative integrity. I might add, in truth, absolute integrity, as far as human science is now able to determine.

According to this doctrine, aphasia may be "cognitive or executive" as the memory may be in fault, or the exercise of the function of will may be in fault. In the latter instances, the difficulty in executing mandates of the will is not in paralysis or imperfect action of the vocal organs, but in their origination, or their delivery from the ganglionic centres of their birth to the system of inter-nunciatory nerves.

This partly speculative analysis of the disease, it is true, renders us little wiser or better prepared to cure it, but the earnest physician desires information concerning incurable maladies, no less than those more obedient to his ministrations. It, moreover, promises a certain measure of practical value; because cases of aphasia may give rise to very perplexing questions of a medico-legal character. If this patient* had possessed property to be devised, I could not have deposed that she had retained a a legal testamentary capacity to the period of first coming under my observation, and yet, on the other hand, I should have found extreme difficulty in sustaining an opinion that she was incompetent on account of imbecility. Although it was evident that the patient's intellect had suffered impairment, it was not possible to apply any tests which would determine the degree of injury. She recognized the female friends who visited her and burst into sobs and tears when her husband told her, in my presence, of a letter from one of her old associates. She gave unmistakable evidence that she understood much of the conversation addressed to her. Therefore, whatever was the cause which prevented the employment of language on her own part, a knowledge of its import was to some extent retained. Efforts were made to improve her means of communicating with those around her, by having several of the ordinary sick-room wants printed upon large cards, which were placed within her reach and instructions given her to hold up to the nurse that one which represented the attention desired. This plan was a total failure. She would indicate her desire for food, and for particular preparations of hospital fare, by signs to the nurse, but could never be taught to select the card upon which any one of these wants was printed.

---

*Case Described in this Journal for January, 1869.

But if we even admit, that the patient was not legally capable of disposing of property at any time after coming under my care, such admission cannot be extended back to the period when the aphasia was first manifested. The first great question, the answer to which must serve as a rule in the medico-legal consideration of aphasia, is, whether in loss of language, from cerebral causes, there is a proportionate loss of intellectual capacity? The correct answer must be in negation of any such position. However plausibly we may reason about the importance of the aphasic regions of the brain, and the impossibility, theoretically, that their structural damage should not abase the intellect to a degree commensurate with its extent, well attested laws prove, that complete loss of language of cerebral origin may occur, and yet the mind be but little if at all impaired. Memory of words, or the volitional power of connecting ideas with words, may be so completely lost, that the patient can neither speak, nor write, and yet there may be preserved to him that intellectual consciousness of sensations, facts and circumstances quite sufficient to indue him with sound reason and a disposing memory.

ART. IV.—IMMENSE NUMBER OF WORMS IN AN INFANT—THE CASE SUCCESSFULLY TREATED. By T. CHALMERS DOW, M.D., Nashville, Tenn.

Was called, September 14th, to see a colored female infant, who had for several days exhibited unmistakable signs of worms. When I arrived, found her to be a babe of ten months, large for her age and the tenth child of very healthy parents, though the mother is somewhat addicted to drink. On examination discovered the little patient to be somnolent, abdomen tumefied, and, during sleep, would writhe in its mother's arms and clutch convulsively, mouth twitching, etc. On inquiry into the history of the case, ascertained that she had been one of her most sprightly children; though only ten months old, was sufficiently strong and active to find her way over the house and yard. Her diet had been entirely unrestricted: vegetables of all kinds, and green and ripe fruits *ad libitum* constituted the facts obtained. When first seen, the pulse was about 130 and she had just vomited worms. Prescribed emulsion of turpentine, followed by calomel every four hours. Saw her again on the 15th; had had several passages, consisting mostly of *lumbricoides*, with a little mucus, the former partly dead and living. Her urine was very high colored; appetite normal. Still continued to eructate worms at intervals, the titillation caused by them producing violent sneezing.

To the emulsion was added elm and flaxseed tea, sweetened, which she drank eagerly. Under the use of the turpentine, she still passed worms until the 18th, but was daily growing weaker. I now discontinued the emulsion and substituted fluid extract of spigelia and senna ℥ii and santonine 16 grs; dose a teaspoonful every six hours; also prescribed sustaining diet, for she was now quite feeble. With this treatment, the worms passed freely, as she had several evacuations each day. For five days, she had passed literally nothing but the lumbricoides, many of which were over four inches in length and none under an inch. No more worms passed after the 22d, and she is now convalescing rapidly on quinine and iron. At a moderate computation, she must have evacuated over 1,500 worms.

This seems to be an unusual case. The most plausible hypothesis as to their origin certainly point to her former habits and free indulgence in crude fruits and vegetables. Her parents acknowledge that she has frequently been seen eating portions of these articles which had been lying about the premises several days, in which certain *larvæ* of flies and other insects may have been deposited, and under the zymotic influences of her stomach and intestines found liberation and development.

ECLECTIC DEPARTMENT.

"Carpere et Colligere."

Art. I.—Tubercle. Lecture. By Robert Bartholow, M.D., Pathologist to the Hospital, Professor of Materia Medica and Therapeutics in the Medical College of Ohio.

Gentlemen: We have before us a specimen of tuberculous lung. I propose to make this the text for some observations on *tubercles.* What do we mean by this term? If we look at this specimen we see scattered throughout its substance, grayish and yellowish masses —a material incapable of any higher development, but whose constant tendency is to softening and extrusion from the tissue in which it appears. There appear to be two kinds of this material in this specimen—gray and yellow. It has long been held that there are two varieties of tubercle, corresponding to these, but we shall find that these are really but different stages in the retrograde metamorphosis of the same material. Gray tubercle is usually found in the form of very minute masses disseminated thoughout the affected tissue; yellow tubercle occurs in large isolated masses; but this distinction will not hold good in all cases. There are also histological differences as you will see on examination of these specimens. The gray matter is more distinctly cellular. You perceive that it contains nucleoli in abundance, some oval and fusiform cells nearly perfect in shape, and irregular cell forms, and the *débris* of cells. The yellow tuberculous matter is more granular, fatty; its cellular elements are irregular and broken; it contains, also, more or less calcareous matter. We find frequently in healthy lungs, especially of the aged, masses of calcareous matter, perfectly distinct and self-circumscribed, which are sometimes mistaken for "cretaceous tubercle," but these masses are not cretified tubercle but portions of pulmonary tissue which have undergone calcareous degeneration, similar to that which takes place in the arterial tunics. The cretaceous tubercles, so-called, are simply masses of yellow tubercle in which the calcareous element predominates, or if you prefer, which have undergone the mineral degeneration.

There can hardly be a doubt now that the so-called varieties of tubercle—gray and yellow—are simply different stages in the retrograde metamorphosis of the tuberculous material. The small gray masses belong to the first stage. Each miliary tubercle is made up of distinct masses deposited around the different centres. Collected in larger rounded masses, these gray miliary tubercles undergo a cheesy metamorphosis; they soften, become granular and fatty, when they present the well-known appearances of yellow tubercle. Yellow tubercle then is only another stage of the gray tubercles. Such is the commonly accepted view, derived from the teachings of Laënnec. This view, however, has not continued to pass unchallenged. Niemeyer, the distinguished professor of medicine at Tubingen, has vigorously assailed these doctrines. He affirms that there exists but one variety of tubercle—the miliary—and but one form of tuberculosis—miliary tuberculosis. That which Laënnec styled tuberculous infiltration of the lung, Niemeyer considers the product of chronic, especially catarrhal pneumonia. Virchow had, however, previously shown that various formations may undergo cheesy metamorphosis, and that therefore this pathological change is not a peculiarity of gray tubercle. It follows then that every cheesy mass which we may find in the lungs is not necessarily the result of retrograde changes of gray tubercle, but may be a product of inflammation. We cannot therefore accept fully and without qualification the views of Laënnec, nor the more recent and authoritative statements of Niemeyer.

What is the origin of tubercle? This is a question now being studied with extraordinary activity. It is one of the many phases of that *vexata questio*—the relation of constitutional states to local diseases. It would serve no useful purpose to discuss the relation of the tubercular deposit in the lung to the supposed cachexia upon which it is dependent. But it is a practical point of some importance to ascertain the seat of the tubercular deposit in the pulmonary tissue, and the relation of this deposit to the changes which take place in the lungs in case of tuberculosis. According to the old doctrine of exudation still pertinaciously adhered to by some persons, tubercle was assumed to be an exudation from the vessels into the pulmonary parenchyma. Since, however, the cellular doctrines of the Berlin school have become so widely accepted, this exudation theory is considered untenable. The most advanced pathologists of our time engaged in the study of tubercle, accept the views of the Berlin school and maintain that tubercle is a product of the tissues, and not an exudation from the vessels. I need only mention, Villemin of France, Lebert of Breslau, and Southey of England, all of whom have recently published their investigations on tubercle. These authorities differ as to the precise seat of tubercle genesis. Virchow holds that tubercle is developed in the intervesicular connective tissue, only, and that the masses found within the alveoli of the lungs are not tubercle, but cheesy masses, the product of inflammation or catarrh. On the other hand, Lebert and Villemin maintain that the cheesy masses found in the air sacs are true tubercle developed from the cells of the epithelium. All admit, however, that the connective tissue of the lungs is the principal seat of the new product—another tribute to the pathological knowledge of the Berlin school.

What is the relation of tubercle to that condition of the lung called consumption? Niemeyer makes the startling statement that "the greatest danger of most consumptives is, that they may become tuberculous." The commonly received opinions are those derived from Laënnec. Deposits of miliary tubercles are believed to be aggregated into distinct masses, which becoming granular, fatty, and yellowish, are called yellow tubercle. The masses of yellow tubercle soften in the centre; neighboring portions of the pulmonary tissue are involved in the ulcerative action, and cavities are formed. As one result of the presence of tubercle-masses circumscribed pneumonic patches are produced. According to Niemeyer, chronic pneumonia is the principal cause of cheesy infiltration, and that therefore those yellow masses, so called tubercle, are really in most cases inflammatory products. There can be no doubt, I think, of the great importance of pneumonia in the progress of phthisis. I frequently see this in the autopsies which I have occasion to make in this hospital. The specimen before us illustrates this truth. The cavities are small; the cheesy infiltration is not extensive, but we find numerous patches of pneumonia. This specimen is instructive from another point of view. When I incise this lung, I find it hard and resistant. On closer examination we perceive that this hardness is due chiefly to a great increase of the intervesicular connective tissue. One result of this increase of the connective tissue is encroachment upon and compression of the air-sacs, whence occurs carnification of portions of the lung.

Is tubercle a specific product? Is it inoculable? A great deal of attention has lately been devoted to this question. It was Villemin who first demonstrated the inoculability of tubercle. He proved that that material which we call tubercle, may be transmitted to the lower animals by man, and from one animal to another. His experiments were performed upon rabbits chiefly. He found that not only was the gray matter thus inoculable, but that the cheesy product of chronic pneumonia was also, and hence he concluded that the latter was as true tubercle as the former. These experiments were repeated by Simon, in England, who confirmed in every particular the results attained by Villemin. The same line of investigation was pursued by Lebert of Breslau, Wilson Fox and Sanderson of England, who, acting independently, arrived at similar conclusions. Lebert showed that various animal poisons and irritants introduced under the skin of rabbits, produced deposition of gray miliary tubercle in various internal organs. But the most remarkable series of experiments complementary to all that had gone before, are those of Sanderson of England, who demonstrated that any irritant introduced under the skin of the rabbit, producing inflammation and suppuration, was followed by the appearance of gray miliary tubercle in internal organs. The specific inoculable character of tubercle by Villemin, and apparently demonstrated by him, was thus proved to be erroneous. It was not the tubercle which was transmitted by inoculation, but the local irritation and suppuration which produced the phenomena observed. This demonstration seems to confirm the view of Niemeyer, that inflammation is an important factor in the production of that state to which we apply the term, tuberculosis of the lungs. I do not mean to convey the impression that cheesy infiltration is a result of ordinary acute pneumonia, but of that chronic or catarrhal form of pneumonia which occurs in those debilitated or cachectic constitutions having the tuberculous diathesis, so-called. We may then agree with Niemeyer in that apparently paradoxical statement —that the greatest danger of consumptives is that they may become tuberculous.

It is probably necessary for me to explain somewhat more fully what is meant by cheesy infiltration. In acute pneumonia occurring in a healthy subject, an extraordinary proliferation of the cellular elements of the pulmonary tissue, chiefly the connective tissue takes place. The lung is then said to be hepatized. This new material may proceed to further changes and purulent infiltration takes place. In the case of chronic pneumonia occuring in a scrofulous or tuberculous subject, the products of inflammation have a much less healthy form; the new material is less plastic, so to speak, it is cheesy, and is infiltrated through the lung or portion of lung principally involved. This form of inflammation has a special affinity for, or selects by preference, the apices of the lungs, and it is here usually that we find the new material or cheesy matter. The connective tissue, as all now admit, is the principal seat of the changes which occur in chronic pneumonia, but it is also believed by many that this material may be produced by the epithelium lining the air-sacs. Such is the explanation, then, of the production of the cheesy material generally considered to be yellow tubercle. Beside this, as I have been at some pains to show you, gray tubercle does undergo a cheesy metamorphosis and is converted into true yellow tubercle. Whatever may be the source of the cheesy material thus produced in the lung, it is incapable of those retrograde changes which healthy inflammatory products undergo; *i. e.*, liquefaction and absorption, but is a foreign body whose tendency is to softening, decay and extrusion from the tissue in which it occurs. Niemeyer, however, believes that the cheesy product of chronic pneumonia may be led to undergo the same benign changes as the product of acute pneumonia in a sound organism, and I have myself seen a few instances in which this seemed to have occurred; but I think the result will generally be as I have stated it—softening and extrusion of the cheesy material, formation of cavities and destruction of that portion of the lung involved.

Before quitting this subject, let me say a few words about narrowing of the pulmonary artery as a cause of tubercular deposit in the lung. M. Lebert has collected twenty-four cases in which congenital narrowing of the cone or the orifice of the pulmonary artery existed and in one-third of which, pulmonary tuberculosis of a very intractable form occurred.

Authorities referred to in addition to those already named:

British and Foreign Medico-Chirurgical Review, July, 1868.

Archives Generale de Medicine, Quillet, 1867.

New York Medical Journal, March and April, 1868.

Niemeyer on Pulmonary Tuberculosis. Translated by Parkes, etc.—[*Cincinnati Medical Repertory.*

ART. II.—A CASE OF MEMBRANOUS DISEASE OF THE THROAT AND AIR PASSAGES, CONJOINED WITH, OR IMMEDIATELY SUCCEEDING A SLOUGHING ULCER OF A TONSIL—RAPID FORMATION OF MEMBRANE AND EJECTION OF UNUSUAL QUANTITIES—DEATH FROM EXHAUSTION—WITH A CASE OF INFLAMMATION OF THE SAME PARTS WITHOUT MEMBRANE—RECOVERY—CASES COMPARED—REMARKS.

Reported (and specimen shown) to the Boston Society for Medical Improvement, August 10 and September 14, 1868. By B. E. COTTING, M.D., of Roxbury, Associate Member.

Mrs. A., widow, aged 37, mother of several children, apparently in firmest health, tall and stout, but not gross, weighing about two hundred pounds; after exposure, in early morning, to chilling air and damp ground in her garden, became ill in the afternoon of Thursday, July 30th; felt chilly in the evening and retired without supper. In the night suffered much from a soreness of throat, which increasing rapidly and painfully into the following day, she asked for medical advice.

Friday, July 31st, P.M. Left tonsil swollen externally to the size of half a large hen's egg, divided longitudinally. Inside, on middle of tonsil, a rough, ragged, sloughing ulcer, three-quarters to an inch in diameter, surrounded with intense inflammation, mahogany red, extending in all directions, even to the other tonsil, and into the nares and pharynx, as far as could be seen. Pain and burning intense and "intolerable." Restlessness great, with frequent calls of "what is it? what is it?" No new constitutional disturbance. Skin and pulse normal or very slightly disturbed. (Day very hot and oppressive.) Had taken solution of chlorate of potassa, which aggravated the soreness and intensified the distress.

On Saturday and Sunday, the ulcerative process continued and small quantities of bloody, sloughy masses were thrown off. The throat on left side hung with shreddy pendants, of a foul, dirty appearance and offensive odor. Swallowing almost impossible.

Monday, Aug. 3d. Nearly all the shreds, etc., gone from the throat. No odor. Swallowing comparatively easy. Milk taken by the goblet without difficulty; other things not so easily. A feeling of soreness in throat, but oppression under upper portion of sternum most complained of. Appearance of membrane in throat and on arch of palate. Tonsil reduced in size and swelling of neck subsided.

When requested, she could inflate the lungs fully; but generally the breathing was short, unsatisfactory and attended with great and anxious effort and frequent attempts to clear the passages. No sleep since Thursday night, the night of the attack. Voice, generally in whisper, by effort raised to nearly natural force and tone.

The weather up to this time was very hot and sultry. This added to the suffering and increased the perspiration, which covered all upper part of the body. She would get up and walk about the room, or sit at an open window, in spite of all remonstrances.

Tuesday, Aug. 4th, (stormy, wind north and cold.) All symptoms aggravated; labor in breathing excessive. No continuous sleep. Swallows readily; takes milk in quantity—a quart during the day time. Oppression and pain in upper part of chest increased. Less restless, or rather is able to keep one position longer than when the weather was so hot. Skin of extremities cool. Pulse 100. Tongue dry and stiff; coat hardened by the necessity of constantly keeping the mouth open.

Wednesday, Aug. 5th. In morning coughed up two ribbons of membrane, with some relief to respiration, but with increase of soreness in upper part of chest. Night much as before. Exhaustion now quite marked. Pulse 120, feeble. Extremities cold. Mind clear. The question, "Where will it end?" repeated frequently, in whisper.

P.M. Seen with Dr. E. Palmer, of Boston. Asphyxia apparently imminent, but on effort fills the chest. No obstruction sufficient to indicate tracheotomy for a moment. Semi-recumbent, supported by pillows, but sits up when requested, and takes position required for examination of throat, etc. When told that she must take some brandy in her milk, said it would burn her, but that she would try it. Sat up of own accord, took the goblet and made the trial. The fluid being regurgitated through the nostrils, she compressed the nose with her hand and compelled the liquid to pass down her throat, in this way swallowing half an ounce perhaps. Pulse 130, feeble and irregular.

At about 5 P. M. ejected, with almost superhuman effort, disengaging it with her fingers from the throat where it stuck for a time, a tubular membrane, which had lined the trachea, branches, and even the smaller ramifications; a mass which seemed impossible to have existed there with so much space for inspiration of air; or, existing, to have been, by any possibility, cast off whole.

After this she fell asleep and slept about half an hour. Felt relieved, but suffered greatly from burning soreness over upper part of chest. Being told that her safety depended somewhat on her own exertions, she applied herself diligently to the remedies and nutritious mixtures.

At a little before midnight she gently repelled further assistance, saying that "it is of no use," and, laying down her head, without tremor or movement, ceased to breathe —so quietly that the attendant could hardly believe it. Those then immediately summoned to her bedside noticed that the heart continued to beat for some moments after respiration had entirely ceased.

During the sickness there was no "fever heat" noticed by the attendants, except a little at the onset of ulceration of the tonsil. Perspiration, great during hot days, was not very remarkable and only on upper portion of chest, neck and head, on the subsequent cold days. Pulse from 80 (first day, Friday) rose gradually and feebly to 100 on Tuesday, and to 120, 130 or more, on Wednesday, the last day.

Respiration, though very laborious, was so from the increased mechanical effort necessary to move the chest, arising not from obstruction in the larynx (as any one could be convinced by a little attention), but from the air inspired not "satisfying," as she said.

The chest was at all times resonant on percussion. The vesicular murmur, heard for the first two or three days, gradually diminished in force, and at last became inaudible; restlessness of the patient, however, rendered auscultation somewhat unsatisfactory. Cough, or an apparently voluntary effort to clear the throat, was constant from the beginning, accompanied with the frequent exclamation "so tired." Position was changed almost every moment, without rest in any. Soreness particularly, and pain often, in the parts affected, were continually complained of.

Nearly six days and five nights were passed without sleep, except an occasional momentary nod, as both patient and attendants averred. She slept for half an hour, however, a few hours before death, when her revived appearance and repeated expression of "such a rest," gave attendants a transient hope that permanent relief was at hand.

Death took place without any perceptible change in her appearance—from her declared and seeming inability to make any longer the exertion necessary to respiration.

The disease appeared in this instance to have no more connection with the ulceration of the tonsil, than in other cases it has with measles or scarlet fever, which it sometimes fearfully complicates. As is well known, it often occurs without inflammation of the tonsil or of the throat; while inflammations and ulcerations of the throat and adjacent parts are very frequent without formation of membrane. Like other diseases, it "has as much depended upon one particular poison as the human race has depended upon the transference of one particular germ."*

Treatment.—Chlorate of potassa, taken before medical advice, aggravated the distress and was soon abandoned. Anodynes, never to somnolence, were apparently serviceable, given in varied, thin, mucilaginous solutions. Morphine proved most acceptable to the patient, and most effective. Carbonate of ammonia and brandy were administered when strength began to give way.

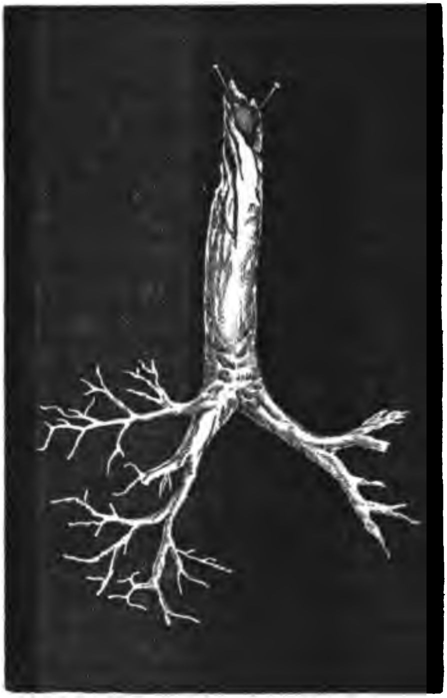
Cotton batting was kept, with acceptability, constantly to the neck and upper part of chest. A small sinapism was applied for a few moments, by a friend, on the fifth day, but caused distress, and was soon cast off by the patient.

Vapor of hot water on anodynous plants was administered constantly, by inhalation, with greatest satisfaction to the patient, and gave the most apparent relief.

---

*"The Poisons of Spreading Diseases," by B. W. Richardson, London, 1867, p. 8. A son, a delicate youth, subjected to the same exposure as the mother, did not then, like her, receive the "poison," or morbific element, nor subsequently from her while sick, although he was afflicted with a bronchial affection. This shows that personal susceptibility is also requisite.

Diet.—Milk, as much as could be got down; and, in last portion of time, milk and brandy. She tried other liquids—beef tea, gruel, etc., but they were uniformly distasteful and caused discomfort.



The accompanying wood-cut, taken from a photograph, will give a very good idea of the membrane as ejected. It must be borne in mind, however, that the specimen was somewhat shrivelled and corrugated, especially in the smaller branches, by the alcoholic solution in which it was preserved. It was tubular throughout. The tracheal part measured four and a half inches to the bifurcation and averaged about ⅝ of an inch in diameter. The representation is about two-fifths of natural size. The membrane was quite thick and firm, except at the upper part, and in the smaller subdivisions, a number of which, especially of the twigs of the left bronchus, were detached, though handled with all possible care.

CASE II.—Mrs. B., a widow, aged 88, a thin, spare person; for many years a martyr to dyspepsia, and latterly living on minute fragments of beef and bread; mostly confined to the house and made ill by any exposure to the open air. Weight from ninety to ninety-five pounds.

Tuesday, Aug. 18th, reported unusually cheerful and active during the day. In the evening, complained of a sore throat and passed a rather uncomfortable night.

Wednesday, Aug. 19. Saw her for the first time in afternoon. In paroxysm of fever. Skin hot. Pulse 100. Throat (pharynx) inflamed, having a deep-red and angry look; swallowing very difficult. Voice slightly roughened. Respiration not as comfortable as usual, but to appearance not much disturbed. Occasional cough or hack. Had a dejection previous day; objects to opiates. Directed syrup of wild cherry in aqua acaciæ *ad libitum;* cotton to throat and neck; vapor of hot water.

Thursday, August 20, A. M. Pulse 100. Breathes with effort. Voice and cough husky and stifled. Swallowing painful. Distress in stomach (her old symptom). Beef tea adds to the distress. Takes a very little brandy and water. Vapor tried, disagreed, and was abandoned. Fomentation of hops to throat and top of chest (she added onions with satisfaction, but declined a second application of them). Was willing to have laudanum externally. Throat less angry-red.

In afternoon, symptoms became aggravated. Great distress at top of chest. Some coarse râles heard there; resonant on percussion. Some little mucus expectorated, with great effort, tinged with one or two slight stains of blood. Complains that she is breathing over a *very* sore surface. Larynx and trachea quite tender on pressure. Chest fully inflated by special trial, but imperfectly in ordinary respirations. Expression anxious. Is concerned about the result. Feverish. Pulse 110, feeble. Restlessness and jactitation as night approached.

In night, frequently waking "in spasms" from short dozings. Consciousness sluggish. Her appearance very alarming to attendants, who several times thought her dying. Seemed pulseless at times when apparently asleep. Food, drink and medicines for a while abandoned, through difficulty in making the effort to swallow. Extremities cold, but readily warmed up.

Friday morning, Aug. 21st. Lies only on back, head slightly raised; uneasy, but cannot take either side. Does not appear so distressed; groans but little. Respiration irregular, with occasional interruption, and some wheezing—twenty-four per minute. Chest resonant in front. Cannot speak loud. Cough feeble and hoarse; some mucus raised with difficulty and annoyance. Pulse 120, feeble. Tongue dry. Throat not easily seen. Can swallow more easily; but brandy, though largely diluted, "burns like fire." Can take nothing but a little thin syrup of poppies, with a mere particle of carbonate of ammonia.

In afternoon, slept some and was more quiet than before. Was able to take a little milk, with a few drops of brandy in it, not more than four teaspoonfuls in all of the mixture. At noon, with effort, spoke aloud in cracked tones. Took three spoonsful of the milk and brandy, and nibbled a bit of cracker. No change in afternoon.

Towards night, respiration more labored than in morning, wheezy, irregular; twenty-four per minute. Tongue moist. Throat not very red. Both swallowing and respiration less painful than hitherto. Pulse 116. In night, variable; generally more quiet and able to take much more drink. Slept frequently; short naps. Occasionally appeared to be sinking, especially so near day-break. Asked for camphor and inhaled vapor of it with relief.

Saturday, Aug. 22d, forenoon. "Comfortable." Comparatively quite free from distress in throat and chest. Respiration easier, twenty-two per minute; still with some effort, to overcome apparent slight obstruction in trachea. Pulse 120. Body hot. Extremities cold. Beef-tea enema directed. During day complained of increased weakness. Respiration twenty per minute, with occasional whistle. Chest resonant. Cough decreased and in evening voice became nearly natural. Exhaustion appeared less. Now and then a very slight wandering of mind.

Sunday, Aug. 23d. In morning, pulse 110. Respiration better and easier. Cough, from lower parts of chest; some râles. Mucus expectorated. Skin natural. Mind clear. Took injection, which worried much without effect. Took a teaspoonful of sol. morph. offic.

At night, pulse 100. Respiration good, twenty-four per minute. Bright, talkative. Cough abated. Expectoration very slight. In night, slept pretty well for her. Perspired some.

Monday, Aug. 24th. Doing well, and improving in all respects, in the forenoon. Slept much. Was not so well in night following. Sleepless; hot; pulse "rapid." Cough again troublesome, but no expectoration.

Tuesday, Aug. 25th. Easy. Respiration good. Pulse 100. Complains of discomfort in stomach and bowels. No satisfactory dejection. Took rhei pulv., cal. magnes., āā ʒss., which in afternoon, by aid of injection, produced a tolerable dejection, with relief. At bedtime, took a teaspoonful of sol. morph. offic.

Wednesday, Aug. 26th. Had a fair night. Pulse 96. Respiration good. Cheerful; free from pain and distress. Cough only occasional and slight. No heat or discomfort in bowels. Takes but little nourishment, but enough compared with usual habit before this attack. Completely convalescent from the disease of throat, trachea, etc.

It may be observed that in this case the same parts were involved as in the previous one. Great distress and difficulty in swallowing, speaking, and breathing, followed each other in rapid succession in both cases. In both, relief in these particulars, so far as obtained, followed in the same order. In both, the constantly recurring and extraordinary efforts the patients were forced to make in breathing caused their greatest distress. In both, there was the same imploring for "rest," and the same exhausting restlessness. In the second case, however, the burning soreness of the parts were more marked; and the danger of speedy extinction of life appeared to attendants more frequently imminent than in the first. In many other particulars the two diseases ran parallel courses. Yet these two diseases are evidently essentially different. One is characterized by the formation of a membrane—its sine qua non; the other, equally a specific disease, manifests itself in an inflammation purely, with no tendency in itself to membranous or other complications; and though liable to be (to use the words of a late eminent practitioner*) "so suddenly destructive of life, is among the most simple in its nature," resembling in its earlier stages "the common affection which we all know as a sore throat arising from a cold."—[*Boston Medical and Surgical Review.*

ART. III.—THE TREATMENT OF VENEREAL DISEASE. By DR. G. H. B. MACLEOD.

The treatment of venereal disease divides itself into the local and constitutional. The former is of course alone required in the case of the soft chancre, but both are necessary in true syphilis. It may, however, be here said that a mere excoriation demands the simplest possible applications. Water dressing, or a very weak stimulant, or astringent solution applied on a thin teased-out flake of carded cotton; or what often succeeds better, a little chalk-powder, or starch, dusted over the breach of surface, combined with attention to the bowels and the avoidance of wine, will probably suffice. In dressing this, and all such sores, the greatest gentleness should be enjoined. The old dressing should be removed by a stream of lukewarm water, and then the new application put on without any "scrubbing" of the part, and with as little irritation as possible. If the foreskin is to be returned over the dressing, the thinner the layer of lint or cotton put under it the better, and the patient should be forbidden to examine, as he is apt to do in his anxiety, the part during the interval between the dressings, as the irritation thus caused is most pernicious. Twice a day is as often as the dressings should be renewed in any case.

---

*Dr. James Jackson. Laryngitis. Lib. Pract. Med., vol. xxiv. p. 165-6.

"Herpes præputialis," as it may depend upon want of cleanliness, contact with leucorrhœal or other irritating discharges, stricture of the urethra, deranged bowels, and especially the acidity arising from excesses at table, or from the dyspepsia which attends gout, will, for its cure, demand the removal of whichever of these causes may be present. Locally, the same applications should be used as are employed in excoriation, especially dry absorbent powders. Caustic is most injurious, and should never be applied. Lime-water with opium forms a good wash, or some port wine, having water and tannin added, according to the requirements of the sore.

If a chancre is seen early it should be thoroughly and completely destroyed. This rule holds good as regards both sores. We destroy the virus of the non-infecting chancre in order to prevent local complications, to avoid its spreading or becoming phagedenic, to prevent the bubo of absorption, to hinder it from multiplying itself on the patient, or being communicated to others.

We destroy the hard chancre, *not* from any hope we can entertain thereby to prevent constitutional infection, because by the time we are able positively to say "this is a hard chancre," *the system is already infected*, but by adequately applying caustic we convert the infecting chancre into a simple suppurating sore, we prevent its communication to others, we remove any dépôt of virus which may remain in the hard base to feed the disease in the system, we give the patient's anxiety a certain relief and inspire him with some confidence, and we also guard ourselves from the imputation of having omitted such application when afterwards constitutional symptoms appear. It is probably true that if the poison of the hard sore is inoculated on a breach of surface, that the specific chancre may so quickly follow that we may be able to destroy the virus while it is yet local, but it is the rare exception that the sore is thus seen by the surgeon. In the great majority of cases, when the chancre comes under observation the time has gone past for any effectual action being taken to prevent the entrance of the poison into the economy, and if we have no other aim than to obviate *that* in applying escharotics to the sore, we would far better omit this painful step altogether. If we use means to destroy the chancre before the hard base, rolling glands and other evidence of its infecting character appear, we can have no possible grounds on which to say that we have had a true chancre to deal with at all, or that we have, by our caustic, prevented constitutional empoisonment; but, on the contrary, there are four chances to one that it is a sore which would never have been followed by any such evil results; whereas, if we wait till such evidence is supplied, then all hope of achieving the end in view is gone, as such indications as we can rely upon for demonstrating the nature of the sore are themselves evidence of the constitutional implication. This is the great obstacle to a decisive opinion regarding the effects of the preventive treatment of syphilis. Men unconsciously deceive themselves. Caustic is applied, and no constitutional disease appears, then they conclude that it has been prevented by the local application; if, on the contrary, the constitution is invaded, then they think the escharotic was too late in being used, or it was not effectually applied. We are apt to forget how much more common the simple sore is than the infecting, and how many non-venereal lesions are aggravated into formidable and confusing ulcers by the applications which the patient, in his fear and anxiety, so often uses himself before he comes to us. Thus, then, we conclude that all suspicious sores should be effectually destroyed at as early a period as possible.

There are many caustics in use for the destruction of the chancre. Some of these are too deliquescent, others too weak, others too painful and slow in their action.

The hot coals, or "dottle" from a tobacco pipe, which are occasionally used by the vulgar, are more to be relied on than many of the escharotics employed by surgeons. I have experimentally tried all the caustics which have been recommended, and very much prefer strong nitric acid, or the acid nitrate of mercury, to them all. I generally employ the former. It is very manageable, penetrating and rapid. The sore must be well exposed, wiped dry, and a large drop of the acid put upon its centre, by means of a spun-glass brush, or a bit of wood, and then the edges and whole surface rapidly destroyed. The patient should be placed with his back against the wall, so as to prevent his withdrawing his person when he feels the sharp sting of the acid. Plunging the part into the water, or pouring a stream over the sore, quickly arrests further destruction and allays the pain. Such simple means succeed in neutralizing the acid just as well as an alkaline solution. The spray apparatus should not be used to diminish the pain, as it hardens the tissues, and so prevents the caustic penetrating, and it renders the surface of the sore wet and so neutralizes the acid. Caustic soda and potash; sulphuric, hydrochloric, acetic and chromic acids; chloride of zinc; Velpeau's paste (sulphuric acid and saffron); alum; sulphate of zinc or copper; the hot iron; Ricord's application of animal charcoal six parts and sulphuric acid two parts; and many other escharotics which have been used, are in my opinion inferior to strong nitric acid and the acid nitrate of mercury, for the reasons before given. It requires no prolonged and painful application, like chloride of zinc, or Velpeau's and Ricord's paste; it penetrates as no alum, or sulphate of zinc or copper, or chromic or acetic acids can do; it is not so formidable and painful as the actual cautery, and is not too deliquescent like caustic potash. Excision terrifies the patient, and is not effectual, as the records of the Dreadnought sufficiently prove, as not only is it very difficult to excise the whole sore, but the edges of the large wound are very apt to become inoculated, and thus matters are made worse than ever. Of all local applications the most useless, in my opinion, is nitrate of silver. It is not powerful enough to destroy the sore effectually, and so fails in fulfilling its most important requirement; and it causes much irritation (especially if repeatedly used) and inflammation in the sore, gives a pseudo-hardness to the base, excites the lymphatics, and altogether does much mischief. It introduces features into the case which do not legitimately belong to it, and so occasions confusion, while, as has been said, it gives rise to unnecessary complications. No caustic should be applied to a chancre so long as it is inflamed. By the use of water, or some soothing application, or possibly by the aid of a leech and fomentations, or steaming, the excited action should be subdued before the escharotic is employed. One thorough application should suffice. The repeated use of a caustic does infinite harm. If it has been once properly applied, it should not again be required, unless phagedena set in. After the use of the caustic a poultice, or, what is quite sufficient in most cases, warm water dressing, should be employed to cause the slough to separate, and then we have a simple ulcer to deal with, the applications to which will, like any other non-venereal sore, depend on its requirements at the moment. If it is slow to heal, or fails to heal from excess or defect of action, it will demand soothing or stimulant dressings; but if it presents, as is usual, the characters of a healing granulating sore, then the simpler the applications the better. Water alone, or medicated by the addition of a small amount of a metallic salt, or an astringent, or a solution of opium, will in very many cases suffice. As in the management of other ulcers, we may have occasion to change the remedies, as a "tolerance" is attained in the effect of any particular application; and it should always be remembered that black-wash is not a fit dressing, unless the ulcer requires a stimulant, and in that case it is not so cleanly as a weak solution of sulphate of zinc. Many would seem, by their unfailing use of black or yellow wash, to imply a belief in some specific effect of a mercurial on a venereal sore. So far from such a remedy being good for all chancres, it is supposed by not a few greatly to predispose the soft sore to phagedenism. Black or yellow wash are only useful when a metallic stimulant is demanded, and then, too, we may use the mercury in the form of vapor, if we please, *though it has no special advantages*, and is somewhat troublesome. Let not the ulcer be "oppressed" by remedies, but use the simplest dressing which will fulfill its wants. It matters comparately little what wash is used, so long as it fulfills the requirements of the sore as to stimulation, soothing, etc. If its wants are properly recognized, there are plenty of agents which we can use. No stimulant application is, as a rule, better than Hey's red wash, Ricord's aromatic wine, or a solution of tartarated iron, or a weak solution of the muriated tincture of iron; nor does any astringent answer better than tannin and glycerine; nor is any soothing dressing superior to a watery solution of opium. All ointments are bad, as being apt to become rancid and poison the sore. After the destruction of the virus, the local management of soft and hard chancres is the same in all respects. They are both by the caustic reduced to the condition of simple granulating sores, and are to be treated accordingly. The hard chancre often heals up very quickly.

The bubo which may attend the soft chancre should be treated early, and with the view of preventing suppuration. If it arise from the absorption of virus from the ulcer, our measures will fail to effect that end, as suppuration is sure to result; but we may by judicious measures diminish the area of inflammation and limit the amount of suppuration. If, on the other hand, the bubo be a simple adenitis, then by the employment of the antiphlogistic treatment, we may, in most cases, prevent suppuration altogether. Rest is especially necessary, together with fomentations, preceded, it may be, by the application of leeches, and the administration of salines. Low diet should also be enjoined. Bubo is most frequently due to the repeated irritation of the ulcer by caustic or other applications, and our measures for preventing suppuration are not unfrequently thwarted, by the irritable or scrofulous disposition of the patient. An opiate suppository at night is highly useful, by giving rest and preventing erections, by which the ulcer is irritated and the glandular complications augmented. When it is evident that pus is going to form, we apply poultices and open the abscess freely parallel to Poupart's ligament. Small incisions are to be reprobated and "multiple punctures" are worse than useless. A poultice will be employed till the pus is removed, and then the cavity of the abscess managed like a hollow ulcer. If the edges of the wound get inoculated by the pus, then we must apply caustic to them as to the primary sore; and if the skin gets thin and undermined, and so diseased as to be incapable of recovery, then we must remove or destroy it. If a gland project from the cavity of the abscess and prevent its closure, then we must excise it, or destroy it by caustic. Sinuses must be split up and dressed so as to granulate from the bottom. The knife should always be preferred to caustic for opening buboes, and, with the aid of the spray apparatus, we can accomplish it without pain. It is possible that the use of caustic may render the inoculation of the edges of the opening less likely to occur, but its slowness and painfulness more than counterbalance such advantages.

If the tendency to suppuration is checked, and enlargement and hardness in the gland alone remains, then counter-irritation should be employed. Blisters, or iodine, or a stimulant embrocation, may assist the removal of such deposits, but there is always great risk by their premature or inappropriate use of reviving the inflammation and inducing suppuration.

The hard rolling glands which accompany the infecting chancre demand no local application. They should be simply guarded from all irritation. Malplaquet's plan of using freely powdered bichloride of mercury and pressure after vesication, is seldom of much use and is no compensation for the possible harm resulting from the irritation it causes and the laying-up which it necessitates. So too, all kinds of counter-irritation are apt to be injurious. The hard glands are here part of the constitutional affection and are only legitimately amenable to the remedies against such constitutional disease, with the other traces of which they will disappear. If from any cause an abscess should form in the groin in connection with the hard chancre, then it must be treated like any other abscess in the same part.

Phagedena may affect either chancre, but is infinitely more common in the soft than the hard, and is in it much more destructive. It may prove a most terrible affair in broken-down intemperate persons, and demands most energetic treatment. The patient should be isolated and the most perfect cleanliness and ventilation enforced. If mercury was being administered it must be stopped, and that food which is most nourishing and easiest to digestion given, with a liberal allowance of wine, unless the patient be phlethoric (which he very rarely is) and there is evidence of acute inflammation round the sore. Phagedena is usually a sign of depression and feebleness, and is to be managed accordingly. If, however, there is acute inflammation present, then it must be subdued in the ordinary way. The sore must be freely cauterized with strong nitric acid, and the application renewed as often as may be required to arrest the disease. When, by means of carrot or linseed meal poultices, combined with disinfectants, the eschar is separated, a strong solution of potassio-tartrate of iron (30 grains to the ounce) forms the best dressing, and a drachm of the same salt should be administered in the twenty-four hours internally with a full opiate at night. It is some years now since we have had any bad cases of spreading sores to deal with in the Lock Hospital, and this I attribute mainly to the early and free use of the salt of iron just mentioned.

As regards warts and vegetations of a syphilitic origin, they should be removed with scissors, and the part from which they sprang touched with caustic or perchloride of iron. There is not the least fear of excessive hæmorrhage, and the spray apparatus will greatly diminish the pain. Warts can be very effectually destroyed by touching them with strong nitric, chromic, or acetic acid daily, till they are completely killed, and then removing them with a spatula or the nail. In the female, syphilitic vegetations occasionally attain an enormous size, hanging down in dendritic irritable masses, which exude a most nauseous discharge.—[*Glasgow Medical Journal.*

ART. IV.—THÈSE DE LA CANTHARIDE OFFICINALE.* Par Armand Fumouze, Paris, 1867.

The medicinal use of insects bearing the name *cantharides* dates back to remote antiquity. Hippocrates prescribed them internally in jaundice, apoplexy and dropsy, but in his day their vesicant property was unknown. This property was discovered, it is thought, by Archigenus, about the end of the first century.

It is very difficult to tell to what species of vesicating insect the ancients gave the name *cantharis*. The probability is that, they applied it to many species indifferently, of which the greatest number were not endowed with vesicant properties. Indeed, when Linnæus made his classification, very numerous species still bore this name, and it was this fact, perhaps, which induced him to give our officinal insect the specific appellation, *meloe vesicato-*

---

*Dr. Stanhope Breckinridge has been kind enough to look over this little French work of 53 pages and five plates and note its most interesting passages. The work was kindly sent to the editor by Mr. E. Fougera, of New York.—ED.

rius, to distinguish it from the non-vesicant cantharides.

The aphrodisiac virtue of Spanish flies is yet far from being proved. The works of Bretonneau and others seem to have demonstrated that *cantharidine*, at least, does not excite venereal desire. Fumouze himself, and three other men, inhaled the vapors of this substance until they had violent inflammation of the bronchial mucous membrane and one of them intense cystitis, but none of them experienced any erotic phenomena.

Cantharidine is but imperfectly dissolved by alcohol, and, therefore, the alcoholic extract is objectionable. Chloroform is a better solvent and possesses the additional advantage over acohol, that is does not dissolve the *red matter*, which constitutes about a fourth part of the alcoholic extract.

The process of separating the cantharidine from the fatty and resinous matters, which are dissolved with it in the chloroform, has hitherto presented certain difficulties, but Fumouze has recently succeeded in dissolving all the matters, except the cantharidine (which is precipitated), by using the sulphuret of carbon. This discovery is important to pharmaceutists.

The body of the cantharis is technically divided into two parts—the *hard* part (embracing the head, thorax, etc.,) and the *soft*, or abdominal, part. The dried specimens contain about equal quantities of soft and hard parts. It is the former which contains the cantharidine.

Dr. F. was unable to obtain the essential oil of cantharides, discovered by Orfila. In searching for it, he distilled cantharides with water, as Orfila directed, and thus obtained a distilled water which deposited a concrete green substance, but in such small quantity that he was unable to study its properties. This distilled water possessed a virous odor, which in no wise recalled that of the insect. He submitted to distillation very many pounds of cantharides, but was still unable to procure even a few drops of the essential oil. He says this was probably owing to the fact that he was compelled to use the dried, instead of the fresh insect.

Druggists should always purchase the entire cantharides and pulverize them in their own shops. This is the only way to insure a genuine article. When the insect is bought in powder it is not uncommon to find it adulterated with pulverized euphorbia. Sophisticators sometime, also, soak the flies in oil to increase their weight.

On examining cantharides, which have been dead for a few months, one will find on them the larvæ of different species of insects. These devour the soft parts but respect the hard ones, so that a fly, whose integument appears to be intact, has the interior of its body full of worm-holes (en vermoulures) containing a peculiar dust.

All means yet tried have failed to protect cantharides from these destructive animals. The best plan is to exclude the air from them and keep them in a dry place. After all, however, the worm-eaten flies would seem, from Dr. F.'s experiment's, to contain nearly as much cantharidine as those that have not been attacked and their vesicant property is not much impaired. Moreover, it was ascertained, by chemical analysis that old cantharides, even when they yield no cantharidine, still preserve their blistering power.

Brief allusion is made to the many species of insects which are fortuitously encountered in the *meloe vesicatorius*, and a very minute and detailed description is given of five species of acarus which live upon it. Indeed, the description of one species—the tydoglyphus longiora—is so exhaustive that it even embraces a vivid sketch of their manner of copulation.

ANALYTICAL DEPARTMENT.

"Qui e nuce nucleum esse vult, frangit nucem."—PLAUTUS.

ART. I.—ANALYSIS OF VARIOUS ARTICLES. Published in the Medical Times and Gazette, the British Medical Journal and the London Lancet. (Original copies.) By PROF. JAMES M. HOLLOWAY, Associate Editor.

DR. TASSI and other Italian physicians are using arsenic locally in lupus exedens, syphilitic and scrofulous sores and in epithelioma, with great benefit.

IN Mr. Hutchinson's wards at the London Hospital, Mr. Clouting has recently, in the space of two weeks, diagnosed fracture of the first rib in four cases. Such an injury is considered rare because of the efficient manner in which that bone is protected.

M. OULMONT read a paper before the Academy of Medicine, at Paris, on the therapeutic action of veratrum viride in the treatment of acute pneumonia, acute articular rheumatism, pleurisy and typhoid fever. The following conclusions were arrived at from clinical experience: 1. The veratrum acts directly by lowering the pulse and temperature, the former at the end of three or four hours diminishing by from twenty to fifty beats. The temperature lessens much more slowly, so that it is diminished by from a half degree to 2° C. only, after two or three days. 2. The dose requisite to produce these effects is from 3 to 7 centigrammes per deim, and for durable effects to be produced it must be continued during three or four days. 3. It exerts a very favorable influence in simple pneumonia, the mean duration of which is reduced by its aid to 6¼ days, while the mortality is less under this mode of treatment than any other. Its action on the local condition is only indirect by arresting the progress of the disease and hastening on resolution. According to Dr. Kocter, of Berne, the mortality of pneumonia treated by veratrum is but 8.3 per cent., while it is 13.5 by the expectant treatment, 20.4 by antiphlogistics and 20.7 by antimony. In complicated pneumonia its action is much less decisive. 4. Its action is far less satisfactory in acute rheumatism and pleurisy, while in typhoid fever its employment is contraindicated. 5. Accidents sometimes attend its administration, collapse sometimes occurring when this has been inopportune or too strong doses have been given. Singultus also not unfrequently occurs.

[NOTE.—The effects of veratrum in the treatment of pneumonia accord so fully with the experience of my partner, Dr. T. A. Phillips, of Mississippi, and of myself in the treatment of a very large number of cases in 1859-60, that I feel justified in giving the conclusions without abridgement.—H.]

DR. BRISTOWE reports nine cases of ascites to the Clinical Society of London not connected with disease of the kidneys, heart or lungs. There was either tubercular peritonitis, or disease of the liver or of its capsule. All of the cases had been treated without benefit with diaphoretics, purgatives or mercurials. Afterwards a careful attention to diet and regimen and the steady use of chalybeates and quinine caused, not only a disappearance of the effusion, but also an amendment of the constitional state.

DR. HENRY MAUDSLEY, lecturer upon insanity at St. Mary's Hospital, thinks that the "conclusions respecting aphasia have been drawn almost entirely from pathological observation, without regard to the important bearing which language, in its physiological and intellectual aspect, has on the question to be resolved."

M. Broca's theory, based upon the examination of two cases, is that the posterior part of third left frontal convolution of the brain was the seat of articulate language. He, together with others who have given an entire or partial adherence to this theory, adduce the following evidence:

1. The more frequent coincidence of impairment of speech with hemiplegia of the right than of the left side. While in respect of this point there is an agreement of observations, still the coincidence is far from being invariable.

2. Many observations corroborating those of Broca, respecting the coincidence of impaired speech with injury to third left frontal convolution. The agreement on this point between so many observers is almost too exact. There is cause to suspect that at least some of these observers were *looking too anxiously* for such any injury and were unfortunate in substituting inference for actual observation.

3. A few cases are recorded in which lesion of the third right frontal convolution was *not* accompanied by aphasia. This is negative evidence in favor of the theory.

4. Cases have been recorded in which there was aphasia, but no lesion whatever of the third left frontal convolution. This is negative evidence against the theory.

5. Some cases are recorded in which the whole of the left anterior lobe was destroyed by disease, and yet there was no aphasia.

Lastly. In 44 cases of impairment of speech out of 832 cases of cerebral tumor, the tumors were more often in the middle than in the anterior lobes. Tumors in the corpus striatum and pons varolii were more frequently attended by loss of speech than when occuring in any other part of the encephalon.

T. SPENCER WELLS, F. R. C. S., has in the past year completed the operation of ovariotomy in thirty-six cases at the Samaritan Hospital. Of these cases, thirty-one recovered and five died. Every case in which the pedicle was long enough to admit of the use of the clamp recovered. There were thirty of these. In two of these cases he used the cautery; one of these recovered, the other died. In the four remaining cases he tried the pedicle and returned it into the abdominal cavity—all four cases died. He, therefore, urges the use of the clamp whenever the pedicle is sufficiently long.

AT the annual congress of German naturalists and physicians, Prof. Ziemssen, of Erlargen, spoke of thoracentesis for hydrothorax due to non-inflammatory processes. He resorted to this *little* operation for the removal of fluid where there was a high degree of pressure on both lungs, consequent upon disturbances of the circulation, in acute and chronic Bright's disease, tumors in thoracic cavity, &c.

He usually made use of the ordinary test-trocar and did not consider it necessary "*to use special precautions for preventing the entrance of air, as this was perfectly harmless.*"

DR. GLUCK, of Liverpool, at the same congress spoke of the value of *blood* as medicine and an article of food. He used the blood of bullocks, calves, cows, sheep and pigs. Containing all the essential parts of meat, it might be called "essence of meat."

Dr. Köhler thought the iron in the blood, so employed, had something to do with its beneficial effects.

A CASE of thoracic aneurism cured by electro-puncture is reported by Dr. Ciniselle, in the Italian Medical Gazette. The tumor involved the aorta of a man, forty-six years old. Seventy-four days after the operation the man was able to return to his employment.

DR. BUZZARD, at the Hospital for the paralyzed and epileptic, Queen Square, has found the application of a blister between the starting point of an *aura* and the nerve centres to entirely prevent the recurrence of the epileptic seizures.

Dr. B. has also recently employed, with success, the actual cautery for the relief of a patient who had suffered constant pain in a circumscribed spot upon the sacrum for three years, the injury being caused by a fall from a horse. The limb was somewhat atrophied and the patient walked lame, the left thigh frequently giving away with him.

The painful spot was first anæsthetised by the spray producer, the "firing" was accomplished without pain.

"The patient has since been completely relieved and has entirely lost the hyperæsthesia."

CLINICAL RECORDS.

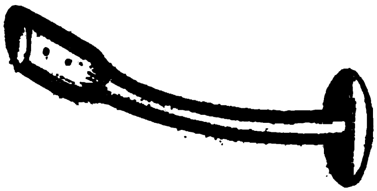
"Ex Principiis, nascitur probabilitas: ex factis, vero veritas."

Art. I.—A New Method of Conducting the After-treatment in the Operation for Vesico-vaginal Fistula. By Dr. J. Goodman, Louisville, Ky.

The ordinary method of conducting the after-treatment in the operation for vesico-vaginal fistula, is not only a great tax upon the time and patience of the medical attendant, requiring, as it does, constant watching that the catheter may not become clogged, or some other accident happen, calculated to interfere with success, but is also exceedingly irksome to the patient, on account of her being compelled to remain recumbent for so long a period, and the great liability there is, in spite of the utmost care, to her person becoming wet and excoriated from the dribbling of urine. Fully convinced, by experience, of the importance of these objections, I have been led to seek for some expedient by which they may be obviated, and, at the same time, the essential indications for cure be fulfilled.

The cardinal point in the management of these cases, is, in my opinion, *to keep the bladder empty.* When this is effectually done, not only are the lips of the wound prevented from being torn asunder by distension, and the muscular activity of the parts subdued, but the organ being collapsed and entirely within the pelvic cavity, is removed from the influence of extraneous agencies and is very little, if at all, affected by movements of the trunk or lower extremities upon the pelvis. Hence I can see no valid reason for prohibiting all exercise and confining the patient strictly to bed, provided this condition of the bladder can be otherwise maintained.

I believe it would suffice, simply to dilate the urethra, thoroughly, with sponge tents previous to the operation; but as there is some risk of this giving rise to troublesome or even permanent incontinence of urine, I would prefer to use a catheter, and have had one constructed, for this purpose, upon the following plan. It is about two inches in length and slightly bent to correspond with the shape of the urethra. At the lower or external end, there is a button, three-fourths of an inch in diameter, and at the other, or internal, a shouldered cup-shaped enlargement four-tenths of an inch in diameter, beveled on the convex aspect of the instrument in order to make it easier of introduction, and perforated with a number of small holes. The stem intervening between these two portions is one and one-third of an inch in length and one-fourth of an



This wood-cut conveys a tolerably correct idea of the shape of the instrument, but represents it as entirely too small in the diameters of all its parts.

inch in diameter, with as large a bore as is compatible with the requisite strength.*

This catheter is relf-retaining in all positions of the patient, first, by reason of the bulb at its upper extremity which passes beyond the urethra into the cavity of the bladder; secondly, on account of its curved shape; and, thirdly, in consequence of the button being overlapped, and grasped, as it were, by the vulva. It is designed, in accordance with the foregoing views, to be placed in position immediately after the operation, and, as soon as the patient feels able to do so, she is to be permitted to sit up and take moderate exercise *ad libitum.* In this way she will not only be rendered in all respects as comfortable during the after-treatment as she was previously; but her general health and strength will be preserved, and at the expiration of the time usually lotted to the remaining-in of the sutures, if union has not taken place, only a few days need elapse to allow the local swelling and inflammation to subside, before another attempt at closure may be made; thus, doing away with those long delays of six or eight weeks, heretofore considered necessary between successive operations.

Other advantages possessed by this instrument may be enumerated, as follows: Being much shorter than those in general use, it does not irritate the bladder to the same extent and is not so liable to become obstructed by mucus or blood clots. It is entirely inclosed by the parts and its temperature is maintained at that of the body, consequently, there is comparatively little deposit of saline matter, within or upon it; in fact, I have never found it necessary to remove it, on account of incrustations, oftener than once in every seven days, and sometimes it may remain even longer than this. There is no danger of its slipping out of place, while the patient is asleep. It may be worn, without causing the slightest uneasiness, for any length of time after the removal of the sutures in a successful operation, in order to prevent undue strain upon the recent cicatrix. Its use does away with all occasion for haste, in removing the stitches. Lastly, it is calculated, I believe, to greatly extend the applicability of caustics in the treatment of vesico-vaginal fistulæ. There can be no doubt, that contraction and closure, of an opening of this kind, would be more certainly effected by repeated cauterizations, if, in the meanwhile, the bladder was kept empty and the urine prevented from passing over the healing surfaces; but no one, at the present day, would entertain the thought of confining a patient to bed, in order to drain off the urine through the urethra, by means of an ordinary catheter while this treatment was being pursued. This instrument, however, will accomplish the same object without inconvenience or the necessity of confinement; and, I am strongly persuaded, that, used in conjunction with caustics, it would suffice for the relief of fistulæ, even of some magnitude. I have not had occasion to put this plan to a practical test, and possibly may never have, for I can hardly imagine a case in which I would not prefer the more certain and speedy method of cure, by operation, but I think that any practitioner, if not prepared to operate, would be justified in trying it, whenever the circumstances of the sufferer rendered it impossible for her to seek aid at a distance.

---

*These catheters, neatly made of silver, may be obtained from Mr. J. J. Hirschbuhl, Broadway, near Third street, Louisville, Ky.

In the use of this, as of all other surgical appliances, a great deal must, of course, be left to the judgment and ingenuity of the operator. Made according to the measurements given above, it will be adapted to most cases; but, as the urethra varies somewhat in distensibility in different individuals, or may be implicated in the injury or contracted from disease, it will be found necessary, occasionally, to modify it, both in size and shape, to meet special indications. In one instance, where the urethra was the seat of vegetations, I employed, satisfactorily, a simple curved tube, two inches in length, with a button on the lower end, which was kept in situ by a perineal bandage.

It is always advisable to select a catheter several days before the operation, and allow the patient to wear it, both for the purpose of ascertaining its retentiveness and of accustoming the parts to its presence. I generally caution her to notice it, and if there is any tendency to misplacement, I instruct her to push it back, gently, with her finger; although I have never had any trouble in this respect, when the urethra has been sufficiently healthy, to admit of an instrument being used with a bulb, three-eighths of an inch in diameter.

The following case will serve to illustrate this mode of treatment:

Case.—Mrs. M——, an intelligent lady, 32 years of age and of sound constitution, came under my care for vesico-vaginal fistula, resulting from prolonged retention of the head and shoulders in breech-labor, two years before. Three operations had already been performed for the relief by one of the most experienced surgeons in the country, with only partial success; after each of which, being quite fleshy, she had suffered extremely from the confinement. Upon making a preliminary examination, the fistula was found to be situated at the apex of the vagina, and sufficiently large to admit the first joint of the index finger; its proximity to the anterior lip of the os uteri had evidently been the cause of failure on former occasions, as it rendered it difficult to maintain the coaptation of its edges. A catheter, with a bulb four-tenths of an inch in diameter, was next introduced; it proved to be perfectly retentive, but excited some vesical tenesmus and was consequently allowed to remain for the two succeeding days, by which time the bladder became reconciled to its presence. I would remark, in passing, that I have often seen these spasmodic contractions excited by the introduction of an ordinary catheter, and I consider it one among the chief recommendations of this instrument, that it can be worn until tolerance of it is acquired, previous to the operation.

On the 24th of November, 1868, I operated in the presence of Prof. H. Miller and Dr. R. F. Logan. Nothing worthy of note occurred during the operation; it was performed after the method of Sims, eight sutures being necessary to bring the lips of the opening together. The catheter was then replaced and the patient furnished with a wire, looped at the end and of just sufficient length to reach to the upper extremity of the bulb, which she was directed to pass into it, three or four times a day to insure its perviousness; and permission was granted her to sit up or walk about the room at will. Being very much fatigued by the operation, she did not avail herself of this privilege, until late in the evening, when she sat up an hour. On the following day she was up two hours in the morning and three in the evening; and after this from six to eight hours in every twenty-four. Her bowels were restrained by opiates, and occasionally, when the secretion of the urine seemed to be scanty, a few doses of sweet spirits of nitre were administered, with a view to diminishing, as much as possible, the deposition of salts within the catheter. On the eighth day the catheter was removed and cleansed for the first time, and subsequently, during the four weeks that it was used, it was not changed oftener than once in six days.

I had fixed upon the tenth day for the removal of the sutures, but was compelled to postpone it until the twelfth, on account of cloudy weather and bad light. On the 16th of December, three weeks after the performance of the operation, I instituted a critical examination, assisted by Prof. Miller and Dr. T. P. Satterwhite, with a view of determining, definitely, the result, when it was ascertained that complete and firm union had taken place.

Throughout the whole of this after-treatment, the patient did not suffer from an uncomfortable symptom or sensation connected with the operation, except that the urine, being caused to flow over a part of the vulva, which was unaccustomed to it, gave rise, for the first week, to slight excoriation, and her general health and strength were as good at the close as they were at the outset.

ORIGINAL CORRESPONDENCE

"Sit mihi Fas scribere audita."

BERLIN, November, 1868.

It scarcely requires a reference to the past ages of the world, to prove the intimate connection between the art and literature of a country and its politics. Rome stood forth, the proud Niobe of nations, some two hundred years before Christ, in the supremacy of her power. Greece, Asia, Egypt, lands which, in their day, had experienced the same vicissitudes of rise and decline, lay at her feet. To her mandates were turned the obedient faces of the inhabitants of the earth. Science and art reached a perfection which in many branches has never since been attained. Every field of literature was cultivated. Medicine, which had lain for so many generations concealed by the fearful ignorance and superstition which overclouded her, loosed herself under the fostering hands of government and shone forth in the full beauty of maturity. Galen, the great master, was hospitably received within her walls and his doctrines disseminated far and wide. But the golden age of Augustus was succeeded by the tyranny and oppression of his successors, among whom a Nero. It had already become the brazen age. Philosophers were exiled, the treasures of libraries burned in public places, statesmen put to death, the votaries of science oppressed, doors opened to the delusive doctrines of Egyptian mysticism and the superstitious juggleries of a succeeding priestcraft. Subsequently, hordes of barbarians from the north, swept over the land like a desolating simoon, obliterating almost the last traces of civilization. The light of science paled and was extinguished. The history of the world exhibits parallel cases throughout her every epoch. The most powerful is as it has always been, the most enlightened land. The government of Frederick the Great, has gradually enlarged its borders and strengthened its resources, from its inception. The lamp of science has ever been preserved in the purity of its lustre upon her altar. Prussia claims to-day, a place high in the first rank among the nations of the earth. The brilliant successes of the late wars have placed her in the very zenith of her power. She possesses, without doubt, the greatest facilities of instruction. America is, perhaps, her superior in the lower branches; but beyond that, America lacks the hand of authority which is empowered to pluck the ever encroaching tares. Charlatanism is in bad savor here, even with the common people. The names of her great men in medicine, as in every other department of science and art, are household words. Everybody knows Graefe and Langenbeck, and every one is familiar with the names of Virchow, Du Bois Raymond, Frerichs and Traube. Their photographs are in every window with those of the King and Prime Minister. The city has mourned for Griesinger, the great authority on nervous diseases, just dead far too soon. A long illness, of some three or four months duration, terminated fatally last month. A fistulous orifice in the lumbar region, with a purulent and urinary discharge, confined him during nearly the whole of his illness to his bed. It was variously diagnosticated by the attending physicians, as pelvic abscess, abscess retro-peritoneal, wandering kidney, abscess of the pelvis of the kidney, etc. The autopsy revealed a retro-peritoneal abscess with perforation of the appendix vermiformis and involvement of the ureter; kidneys intact. He was buried with all the honors of the profession, the rector of the faculty, nearly all of its members and a large number of students following the remains to the grave. His late work on Infectious Krankheiten is considered one of his ablest efforts. His place in the hospital is temporarily filled by Dr. Westphal.

The new session has opened at last, with flying colors. Two weeks have elapsed since the announcement of commencement, but with the genuine Teutonic tardiness which is utterly irreconcilable with anything American, the lectures have been delayed. The machinery is ponderous, however, nearly four hundred courses altogether, of which, over one hundred are in medicine. Every department of science and art is represented, all the languages, ancient and modern, religion, theoretical jurisprudence, music, even riding, dancing and fencing. The libraries, museums, zoölogical and botanical gardens are all rendered subservient to instruction. The new anatomical and chemical edifices approach a palatial splendor; their chief lecture-rooms would rival many an opera in the elegance, even luxury of their appointments. The chief medical attraction of Berlin is, the opportunity for the study of pathology. Her reputation in this regard is, perhaps, unequaled in the world. A commodious building, known as the Leichen Haus, erected in a style which might make some pretensions to architectural beauty, stands apart from the others in the handsome grounds of the Charité. The basement is the general receptacle and contains apartments also for the dissection of animals. The regular school for comparative anatomy and veterinary instruction is the handsome building across the street. The first story contains the Monday morning lecture-room and the chambers for the study of microscopy. The upper story is divided into a central amphitheatrical lecture-room, the didactic hall, large square room in the right wing, provided with long tables and little railways, for the passage of the microscope, and the large room in the left wing, the chemical laboratory. Every Monday morning an autopsy is conducted by Prof. Virchow, *suis manibus*, in the first mentioned room. The body is placed on a revolving table, at which the professor stands, and the students are gathered around on standing platforms, elevating as they recede. This is the most practical, interesting and instructive lecture of the week. Connected with this, is united the proper descriptive pathological course, illustrated by fresh specimens from the cases of the week. The didactic course comprises four lectures a week, occuring in hours at noon. Then a course on practical pathological histology, also by the professor himself, fills the remaining unoccupied morning hours. The lectures on the microscopy of the normal tissues, being delivered by the assistants in the afternoon. Prof. Virchow has also a small ward in the *Charité* which receives his daily visit, so that from morning till high noon he is engaged at the hospital. Politics engages him in the afternoon, during the session of Parliament, as he is an active advocate of the people; at one time so active as to have necessitated a temporary sojourn in a foreign land. He is said to have lately expressed an intention to retire from politics, as peace once more reigns over the land, and stated that he had experienced a contrition for the neglect of his medical works, some fourteen of which he had commenced and left unfinished. He is a man of most indefatigable industry and seems to have so systematized his life as to have made its every nook and corner of avail. He reaches the lecture-room in hot haste and begins his discourse panting. His style can hardly be said to be pleasant—in fact, under a two hour's session, rather tedious; his diction is of course polished; there is no attempt at oratory, rhetoric being among the few branches which he has neglected in his early education; but then, eloquence is rare in every field of literature. In Germany, most of the teachers at the University read their lectures from a chair. Du Bois Raymond, the celebrated lecturer on physiology, being among the few exceptions. Virchow is not a believer in Christianity; neither, alas, are most of the great men of Germany. It militates some against natural philosophy. Some of his bitterest satires are leveled against it; not loud, but quiet and deep. He would make an exceedingly ugly opponent to encounter, on this or any other subject.

In person, small, below medium, a peculiar head, flattened behind, its longest diameter between the ears, hair thin, traces of gray, forehead expanded in every direction, small twinkling hazel eyes, mouth small, lips thin, a complexion which in a lady would be called a clear brunette; though fifty, he possesses the vivacity of youth. He celebrated a few days ago the twenty-fifth year of his medical life. In social life, what the Germans call a zugänglicher man—that is, a man of easy access. There is nothing in his appearance or address which would betoken the man; indeed, nature's only gifts seem to have been an indomitable energy and an untiring application—the rest is self-made.

The subject of to-day's discourse is syphilis. Hitherto, we are informed, the outward manifestations of the disease have been the only ones receiving attention. We now know that there exists a whole series of symptoms affecting the internal organs, characteristic of the disease. The brain suffers a softening; the root of the tongue loses its glandular characteristics, smoothes off to a polished surface from atrophy of its glands; a chronic pharyngitis, the result of the increase of parenchymal connective tissues; the tonsil is likewise attacked and becomes almost obliterated; the heart assumes an hypertrophy; the pleuræ present cicatrices on their surfaces, from the contraction and retraction of chronic pleuritis; the liver reduces in size and presents the same cicatrices, in the cases before us, extending completely through the right lobe at its outer third, forming a new lobe; the kidney suffers atrophy, becomes exceedingly pale and granulated on its external surface—the surface of section remains smooth; the atrophy is likewise induced by an increase of the connective tissue, an indurative interstitial nephritis. Melanosis is divided into three classes—melanoma, melanotic sarcoma and melanotic carcinoma. The first is benign; the two latter, malign tumors. The difference between them is the order or sequence of attack. A melanotic carcinoma of the eye, for instance, would next attack the glands and then the lungs, before the liver was reached. A melanotic sarcoma in the same position, would maintain no such succession of attack; the liver might be the second object.

It is, of course, impossible in a letter of this heterogeneous character, to present anything like a detailed report of several lectures; so that I must fain be content with the transmission of isolated aphorisms.

Cohnheim, Virchow's first assistant, has lately received an appointment as Professor of Pathology at Kiel. His late discovery of the escape of the white corpuscle of the blood from the vessels, has excited the liveliest attention. It has appeared in the last edition of Virchow's Archives, some seventy pages. As I had the opportunity of hearing his lecture on the subject during the microscopic course of last session, I shall attempt to send you a condensed account. The white cells, which are always nearer the walls of the vessel, are observed under peculiar conditions, to become stationary and adherent; shortly after, a protrusion in the wall denotes the presence of a cell there; the wall is then ruptured and the corpuscle is seen, partly within and partly without the calibre of the capillary, after which the corpuscle escapes entirely and is connected to the vessel by a fibrous attachment, which is finally separated and the cell floats free; thus the white blood corpuscle, while still within the walls of the vessels, becomes, or rather is, in the lymphatics, the lymph cell and in an abscess the pus cell. The fact of the identity of the three cells, is one of long acquaintance; but the identity of origin or entity, is the new development. If the discovery be verified, it will shake parts of Virchow's cellular pathology doctrine to the centre.

Perhaps the finest and most systematic clinic of the session, is that of Prof. Traube, the most American of all the medical faculty. From nine to eleven every morning, the proper propædentic or initiatory clinic; three days in the week before the whole class, and three days with a third of the class at the bedside. The old surgical clinic room of the *Charité* has been appropriated for the lectures before the class. The professor and patient inside a large balustrade, behind which a single long bench for the students. There are, however, two galleries of similar construction above, so that a large number of students are accommodated with the additional advantages of an equally good view for every one. Never having seen the lecturer before, illness preventing his summer course, we obtained a seat opposite the door to secure a fair opportunity for the formation of first impressions. In the meantime, we take occasion to notice that the little stand in the corner is filled with tubes and tests and divers colored litmus, the stethoscope, Traube's own, a handsome hard rubber cylinder, with movable ear-pieces, a small but deep concave and an exceedingly small bell, in general use throughout the city and in the pocket of every student, the hammer and pleximeter, likewise everywhere employed, with brush and ink for marking purposes. While bewildering ourselves in a vain attempt at the solution of the enigmatical problem of forming an equal for the great minds of the place, from the dull and sleepy material around us, the double door is flung open and the procession enters. Preceded by an attendant with two large-mouthed flasks containing urine and sputa, follow four nurses carrying the patient in a handsome iron bed, with covers of spotless purity, and then the professor and his three assistants. He is of medium stature, perhaps fifty-five years of age, rather careworn, somewhat nervous look, hair cut short and combed forward like a monk, a full, prominent, penetrating eye, a recklessness of gait and a slovenliness of attire.

He is evidently the master of the situation—his gait informs you of that at once. He is a man who has suffered, and yet, is scarcely a man who has much sympathy for suffering. He carries always a sober mien which is reflected over the class as he enters. A student is called into the arena—he enters without much alacrity—there are evidently some unpleasant occurrences occasionally. The professor takes his measure at once, and, having induced in him the uncomfortable supposition that perhaps some position of his attire is failing, he requests him, rather abruptly, to inform him of the striking features of the case before him. Should he be a man of nerve, it is well, if not, there are cooler and pleasanter climates for a permanent residence. But Traube is a splendid clinician not a symptom or a feature escapes him; every case receives the most thorough revision. He examines the patient from vertex to toe. He is a panopticist. He is a physician of the old school, animated by the fire of the new. He is right square up to the time. He has served his apprenticeship and his journeyman life as student, assistant and private tutor and has come to his position as master workman by dint of time and toil. The case is the Basedow disease; a most exquisite case, the enlarged thyroid, the prominent cornea, the depression of the planes of vision, the impaired movement of the levator palpebræ, the radial tension, the ventricular hypertrophy and the general congestion of the capillaries, as evidenced by the pink hue of the skin, are all beautifully marked, and then he elicits so handsomely the nervous irritability of the disposition. He views, reviews, recapitulates and requests a diagnosis—fortunately, it was correctly given. Then follows a slight history of the disease, symptoms, differential diagnosis, prognosis and treatment. The treatment is, roborant and tonic, quinine and iron, with with the proper observance of all those hygienic measures which would quiet the excited nervous system. The treatment of Trousseau, the antiphlogistic, with digitalis, is of all the least successful. He fears that Trousseau, like many of the French physicians, actuated by a desire to be the first to describe a disease, have allowed, on many occasions, their vanity to interfere with their veracity. The etiology, he prefers to leave untouched. So many and so diametrically opposed are the alleged causes, that it is better in these days of great discoveries in physiology, to defer an attempt. That it is a disturbance of nervous centres, is but too plain; but of what character, is a question for the future.

Two cases of paralysis follow, one the result of an old diphtheria, and one of syphilitic origin. In the latter case, he speaks of the importance of establishing the existence of secondary symptoms—refers in assistance thereto, to an important discovery of modern times, the glazed and shiny appearance of the post portion of the dorsum of the tongue, as revealed by the laryngoscope. The paralysis of diphtheria is always transitory. As to the relation of a brain trouble, he states that the nearer an extravasation or tumor in the brain is to the periphery, the more complete will be the paralysis, by reason of the implication of a greater number of its fibres. In the present case the complete paralysis of the facial on one side, would indicate the seat of the affection at or near the stylomastoid foramen. Age predisposes to brain affections, the inner coat of the artery thickens, or the calibre fills with fibrin. Endocarditis, in its early stages, is a frequent cause of brain emboli. The existence of an embolus in the brain, for more than twenty-four hours, would certainly cause paralysis. Brain affections from arterial difficulties, give no alterations in temperature. The use of opium in brain affections, to be very cautious on account of the tendency to narcotism. The tr. opii benz., although one of the weakest is still one of the most dangerous.

In a subsequent lecture were presented cases of icterus and puerperal fever. In jaundice, the yellow color of the foam of the urine is a valuable diagnostic symptom. The test for bile in the urine consists in letting fall in a deep wine glass, quarter filled with nitric acid, a few drops of the suspected liquid; the play of colors, green, violet and brown, is characteristic. Treatment—mild saline cathartics, baths, etc.

Puerperal fever he devides into three forms: periphlebitic, (here rare); endo-metritic and peritonitic—the two latter often combined. (Virchow often speaks of a diphtheritic.) The occurrence of a pleuritis duplex always render the prognosis of feb. puerper., exceedingly grave. He speaks of the mortality of the disease under either tonic or expectant treatment as colossal. He is an advocate of the antiphlogistic and mercurial—the mercury by inunction, and this to be immediately discontinued on the first appearance of constitutional symptoms. He applies leeches to the abdomen freely, but allows no after-bleeding.

The next hour is devoted to Frerichs. The lecture-room is always crowded, every seat taken and the aisles full. Frerichs himself is a man of very tall stature and exceedingly awkward and ungainly appearance; a face which is nearly half forehead and almost juvenile in expression. He is also far past bodily prime, though still in highest mental vigor; a large, full eye, face perfectly smooth, mouth just a little sensual. He is a man who combines some of the pleasures of life with its pains. Although having occupied a public position for many years, and extended his travels in foreign lands, he is still a man of exceeding diffidence. It is easy to conceive what actual misery it must have cost him before he arrived at even his present position. He sits on the corner of a table to lecture, and, in the interval of its removal for the presentation of a new case, appears in the greatest embarrassment. His hands are in the way and so are his feet. Once seat him, however, and give him materia and he forgets himself completely. He is then in the full possession of the medical *sang froid*. His every word is treasured, for it is the result of years of the ripest experience. His voice is a deep bass, in slow and measured tones, beginning a sentence with a slight elevation and gradually fading off to a sound almost inaudible. But it becomes even agreeable in time, presented as it is, with the full *ore rotundo*, in sentences pregnant with richest import, axioms as it were, it is easy to understand the secret of his success. Here, also, every facility for explanation and illustration exists. The microscopes are placed on the stands, while drawings and specimens are passed around the class. The perfect nonchalance with which he pricks the finger of a patient to ascertain if the drop under the microscope evidences a simple anæmia or a leucocythæmia, is a matter of at least surprise to the uninitiated. Every attempt to improve the blood in the latter condition, he informs us, has hitherto proven futile, hence the importance of a proper diagnosis. To exhibit the peristaltic movements of the stomach in a case of carcinomatons stenosis of the pylorus, whereby the organ was enormously displaced and in proof that the tumor below the umbilicus was really the distended stomach, he administered a carbonate, followed by an acidulated drink; the effect was almost instantaneous, the movements of the walls under the attenuated integument being palpable to all.

The length of this letter already precludes any attempt at a report of further procedures, which I may, perhaps, transmit in a future letter. WHITAKER.

—[*Western Journal of Medicine.*

NEW YORK CITY, December 23, 1868.

The autumnal season, just closed upon us, has been a remarkable one, in a sanitary point of view. This is true, not only of New York City, but also of our neighboring city of Brooklyn. Last month the average weekly mortality of our city was 337 and of Brooklyn 137, less than that of any month during the last summer and fall. Even for the wholesome month of June the weekly death rate of this city was 380. The autumn just closed also compares very favorably, in point of general health, with the hot season that preceded it, the average weekly mortality for the summer being, in this city, 630, and in Brooklyn 285, while during the fall months the respective weekly averages have been only 418 and 177. In Brooklyn, the comparative table of deaths in the last five months, from the beginning of July to the end of November inclusive, with the corresponding months of last year, shows a balance of twenty-two in favor of the last five months in 1868, notwithstanding the excess which occurred in several weeks of July and August. This is truly a happy result in such a rapidly increasing population. Now, however, that winter has fairly set in upon us, sickness is again rapidly on the increase. There are many cases of fever occurring, especially in over-crowded tenement houses, those hotbeds of disease. Throat and pulmonary diseases are also on the increase. In Brooklyn, the number of deaths last week was 140, being an increase of fourteen over the number reported in the previous week, but forty-six less than the number recorded in the corresponding week in 1867. Scarlet fever, pneumonia and phthisis were the principal diseases.

The sessions at the different medical colleges have been quietly progressing since October and recesses have now been taken until after the holidays. The number of students is about the same as that of last winter. The clinics this year have been, for the most part, particularly interesting and sometimes even brilliant, the colleges, in this particular, *indulging in a friendly rivalry*.. The resources of this city for clinical purposes are unbounded. Dispensaries, those great blessings for the poor, as well as useful training-places for the medical student, abound with us and are much frequented by the students of both our male and female medical schools. A new dispensary has recently been opened at No. 794 Eighth avenue.

The female medical colleges are in a flourishing condition and the classes increasing in number nearly every week. It is reported that there are over three hundred female medical practitioners in the United States, several of whom have incomes of between ten and twenty thousand dollars per annum. The Woman's Medical College of this city has adopted a progressive plan of instruction, embracing a three years' course, with annual examinations. For its departments of chemistry and materia medica, it has the use of the rooms and apparatus of the School of Pharmacy. This school proposes to educate professional nurses, to give their attendance freely, or for a moderate compensation, to persons living in boarding-houses and like places, who cannot afford to secure regular attendance. The Woman's Medical College of Philadelphia has had lately bequeathed to it the handsome sum of about sixty thousand dollars.

Several changes have taken place at the Bellevue Hospital Medical College, principally in the surgical department. Professor Hamilton retains Practice of Surgery and the chief part of Operative Surgery, resigning the Principles of Surgery to Professor Van Buren, who also retains Diseases of the Genito-Urinary System, and their operative treatment. Professor Mott, in addition to his regular department of Surgical Anatomy, has also the operations upon Arteries, Aneurism and Hernia. Professor Sayre retains his own chair of Orthopædic Surgery and the operations pertaining to it. A new and commodious clinical theatre is soon to be erected in connection with Bellevue Hospital.

Professor A. Large, whose introductory lecture before the New York College of Veterinary Surgeons on "Certain Diseases Common to Men and Animals" we made mention of in our November letter to the Western Journal of Medicine, made some interesting remarks upon diseases common to both men and animals. "The animals, the similarity of whose diseases to those of the human race was considered, are the horse, ox, pig, sheep and dog. The similarity of the diseases of the horse and ox to those of mankind was observed as early as the time of Aristotle. Beside being liable to the same accidents, as wounds, bruises, etc., the lecturer pointed out the fact that they were liable to disease from atmospheric changes, improper food, overwork and other fruitful causes of disease among men. Among the diseases common to men and animals, he enumerated small-pox and various other eruptive diseases. He stated that a great many sheep were destroyed by small-pox in England during the year 1857, and urged that sheep imported to this country should be subjected to quarantine. He believed, contrary to the generally received opinion, that cows are subject to scarlatina, and attributed many cases of sore mouth to the drinking of milk drawn from cows affected by this disease. He asserted, that what has lately been considered as the cattle plague was not identical with the cattle plague in Europe and pointed out marked differences in the manifestations of this plague from the European plague to sustain his position. The lecturer closed his remarks by urging the importance of establishing veterinary colleges in various parts of the country, as the dissemination of veterinary science is of the highest importance, both from a sanitary and commercial point of view."

Dr. Willard Parker has been recently delivering a series of popular medical lectures on Sunday evenings at the Bethel Mission of Plymouth Church, Brooklyn. The first lecture was on "The Anatomy or Structure of the House we Live in" and the second on "The Physiology or Use of the House," and were listened to by large and appreciative audiences. This popular way of diffusing useful knowledge amongst the masses is one just at present attracting much attention and one that heartily commends itself at once to every sober thinker. It will undoubtedly be the means of effecting great good.

Of Dr. Lemercier, whose late popular lectures on Human and Comparative Anatomy and Physiology in our city gave rise to so much admiration and to such loud expressions of praise, the Medical Gazette speaks as follows: "At a meeting of the New York Medical Journal Association on the 27th ultimo, Dr. Lemercier gave a most interesting demonstration of the course of the nervous fibres within the brain, illustrated by a very beautiful "clastic" model of the structure of that organ as shown by Lay's method of treatment with chromic acid. By this mode of preparation, we discover fibres converging from all directions toward the optic thalami and corpora striata. . . . Many interesting and important physiological and pathological deductions may be drawn from this mode of studying the brain. Thus it is evident that aphasia, for instance, may arise from paralysis of the sensory fibres which convey a stimulus to the convolutions; of the convolution itself; or of the motor fibre which should carry the mandate to the organs of speech. Supposing that of these myriad fibres each has its special function, we may conceive that if one which serves to transmit 'yes' be diseased, the impulse of volition is propelled through the nearest sound-channel and the patient utters another word instead of 'yes.' Again, we are sometimes surprised that lesion of one of the hemispheres is not followed by such disturbances of faculty, as are usual in similar cases. In such instances, it is possible that the transverse fibres of the corpus callosum may convey an impulse from the sound to the affected side. Even if both hemispheres be injured, however, it does not follow, in all instances, that we can detect the evidences of the lesion. Instead of the twenty or thirty 'bumps,' described by phrenologists, we have at least a million and one or more of these may be impaired while the rest remain healthy. If, for example, the fibres pertaining to music be diseased in a man in whom the musical talent has never been developed, the lesion will not be discovered, provided that other portions of the brain are unaffected. Dr. Lemercier concluded by impressing upon his hearers the practical importance of discarding the old system of nomenclature, which speaks of all nerves as having their 'origin' in the nervous centres, and adopting that which considers nerves of sensations as originating in the organs and terminating in the brain. From Gratiolet's system might be exected great results in the study of cerebral lesions."

Dr. Lemercier has taken up his temporary abode in the city of Boston.

We should like to speak of other topics, Mr. Editor, but not wishing to intrude at too great length upon your columns, we will postpone these until another occasion.

Yours, very truly,

James B. Burnet, M.D.

Williamsboro, N. C., Sept. 30, 1868.

I send you an account of the following case of strumous disease of the bones of the leg. In December, 1865, I was called in consultation with Dr. Cheatham, a neighboring physician, to examine a son of Mr. A. W——, of Warren county. He was about seventeen years of age; of a bright, florid complexion, light hair and blue eyes. The whole leg was one mass of disease, caries extending the whole length of the tibia and fibula, involving both ankle and knee joints and a large part of the femur. Numerous fistulous openings were present, through which exuded an exhausting stream of pus. The leg was much swollen and very offensive. The young man was very much emaciated, except in the face, which appeared full and round. He had been suffering for several weeks from hectic and nights sweats and had become very feeble and nervous.

Amputation was obviously the sole resort, but the ultimate success was not very promising, as tuberculosis was strongly hereditary in the family, several members having died of that disease and the septum of patient's nose being already destroyed by the same disease.

The leg was removed by the circular method at about the junction of the upper and middle third of the femur. The patient showed the greatest susceptibility to chloroform and seemed to experience little or no shock to his nervous system from the operation; unlike that I had so often witnessed on the field of battle, the color not even deserting his cheeks.

I supposed I had gone above all disease, but found, even here, the bone as thin as a wafer and the marrow very soft and completely broken down. About two inches more of the bone were removed, reaching as high as possible without necessitating a second amputation; but the bone was still soft and much diseased, although not as enlarged as lower down its length. Thinking a second amputation unadvisable, as it would have reached the upper third of the femur, the stump was dressed and the patient left (with usual directions) in charge of his family.

The point of interest in the case is the rapid and perfect recovery, notwithstanding the diseased bone. Within the short space of three weeks the stump had nearly closed, and in a short time he was going about upon his crutches.

About eighteen months afterwards he was apparently in perfect health, being very fleshy and ruddy. I could discover no trace of disease about the stump.

Dr. Hunter McGuire informed me that similar cases had happened to both himself and his father. We should not, therefore, despair of recovery in amputations for disease, because it may be inexpedient to remove the whole of the diseased bone. It is a good principle to diminish the sources of irritation, as far as practicable, even though we may not be able to remove all, for nature will surely have less to do in her work of restoration.

While upon this subject, I may add that during the late war, observation taught me that perfect recovery from injury to the long bones was seldom interfered with or retarded by longitudinal fissures. Nor did the partial detachment of large pieces of bone from the main body seem to do much harm, provided its union with the main body of the bone, by an adherent periosteum, was not destroyed.

Very truly yours,

ROBERT I. HICKS, M.D.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

"Judex Damnatur cum nocens Absolvitur."

CIRCULAR OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISVILLE.

The circular announcing the intention of the faculty of this venerable Institution to give a SPRING COURSE OF LECTURES has been received. In accordance with a custom of the editor, to present to the profession, for their information and consideration, due notice of any radical departure on the part of a medical college from its past usages or from the usage common to the medical colleges of America, it is deemed expedient to give this circular a brief review.

It appears that the faculty are actuated, in the present movement, by a desire to institute "that intimate intercourse between professor and student which possesses numerous advantages to those engaged in arduous study;" and by a wish to "prolong the under-graduate term of the student." It is just to infer, that this arduous labor, instituted immediately after the expiration of the winter term of five months, is not undertaken for a pecuniary reward, as the fee demanded of the student is *only twenty dollars* for the whole course. There being three lectures each day and the rest of the day being devoted to "study, recitations and dissections," it is evident that, in the course mentioned, the student will receive, for this sum, the equivalent of five hundred hours of demonstration, recitations, etc.; or that he will command the entire resources of this Institution, at the rate of four cents an hour; this being less than one-twelfth of the amount which he would be compelled to pay for the most humble entertainment of modern times.

Again, as the faculty numbers seven members, the proportion of the twenty dollars paid to each would amount to less than three dollars. Deducting, from this, a proper honorarium, to be given to the assistant teachers, who (the profession is informed) "will be put on active duty," and therefore entitled to a just reward, there must remain certainly not more than one half of the amount received; or each member of the faculty, after fairly remunerating his assistant, (who is to do a great part of the work), can not retain more than half of the three dollars which he receives from the student. Deducting again, from this sum, an unavoidable percentage for the expenses of the Institution and there remains, as the reward of each member of the faculty for teaching a student, during this arduous term, less than a single dollar. As then the amount paid to each professor must, if justice is done to the assistants, be less than one dollar for each student, it is fair to infer, that the faculty can not possibly be actuated by pecuniary considerations in giving this course of lectures. No one can possibly be placed in such a condition, as to give a student two hundred and fifty hours of labor (the remaining two hundred and fifty hours being given by the assistants) for a little less than one dollar; or less than half of a cent from the student for an hour's hard work.

It may be said, that the aggregate fees of a large class would render the paltry amount, paid by each student, a respectable reward for the labor; but when it is estimated that a class of one hundred students (a very large estimate at this season), paying each less than one-half of a cent an hour to the individual lecturer, contributes to his support a little more than twenty-five cents for this hard hour's work, it must be admitted, that a pecuniary return can not be the reward sought for this course of lectures.

A simplification of this estimate will render the poverty of this reward still more appreciable. The student pays twenty dollars for a course, embracing not less than 500 hours; or he pays four cents for each hour of labor bestowed upon him. As the junior faculty are to be "on active duty," they will, of course, receive at least one-half of this reward. That is, the four cents paid by the student, for each hour of labor, is to be divided among fourteen teachers (seven senior and seven junior), affording to each teacher one-fourteenth of four cents, or nearly three mills from each student for a hard hour's work. If the junior teachers receive nothing, this sum will be doubled and each senior teacher will then receive a little over five mills. From this microscopic sum is yet to be deducted a per centage for defraying the unavoidable expenses of the Institution. Has any labor in the old or new world ever been performed for such a reward?

Is it not incumbent upon a public journalist to call attention to a proposition which so degrades professional labor, that it may be commanded by any one, who pleases to command it, at the rate of four cents an hour; a rate far below that paid to the illiterate rock-breaker upon the solitary turnpike or to the scraper of mud in the unclean streets of a city?

Of course it is unjust and unfair to suppose that the faculty can expect to obtain the reward for their labor from the sale of diplomas. Diploma-selling is the collegiate vice immediately preceding corporate dissolution and no one will so far injure this venerable Institution, as to suppose that it has, proximately, such a prospect before it.

As pecuniary gain is, demonstratively, not the object of this course of lectures, what induces the faculty to undertake this unpleasant and unremunerative term?

To establish "an intimate intercourse between the professor and student" is a most laudable object and, though by an examination of college circulars, it appears to be a specialty with this Institution, still the attainment of even so delightful a result can not be accepted as the motive for undertaking this dreary labor.

There remains then but one reason, for the delivery of this spring course. The faculty wish to offer the medical student an opportunity of extending "the under-graduate term." Does this course accomplish this object? When a student is unwilling or unable to come forward for graduation, he must prolong the under-graduate period, necessarily, for twelve months; graduating, at the end of his third course. This spring course of lectures to be given by the University, instead of prolonging the under-graduate term, abridges it, by the space of eight months; the student graduating at least eight months earlier than would be possible otherwise.

Again, the student is not charged anything for his third course (the uniform matriculation fee excepted) by any college in America, while, for this spring course, he must pay twenty dollars.

Again, the third course, gratuitously at his command, in all American colleges, is a complete course; while in this spring course, the faculty are to put their corps of junior assistants, "upon active duty."

It would seem, therefore, that, when analyzed, there is no tenable reason for the giving of this course. There are, in addition to those given, other reasons for deeming this course of lectures injurious and undesirable. All who are "rejected" at other colleges, or who are afraid to endure the ordeal of an examination will seek solace, comfort and protection in the hospitable walls of the University. Louisville will become the Mecca of these soiled, disconsolate and weary pilgrims.

An examination is also to be offered to all who have attended one course of lectures and have practiced for four years. According to our deplorable American system, there is no possible way of ascertaining how much of the first course of lectures a student has attended. He may purchase his tickets to-day and leave to-morrow, yet, these tickets are, at his second course, accepted as his vouchers. A large proportion of first course students come late and leave early in the session. Is it not increasing the existing dangers and deficiencies of our school system to allow any one who has in his possession one full series of first course tickets to come forward for graduation (provided he has practiced four years) after attending such a second course, as is contemplated in this spring course; a term confessedly elementary, incomplete and not conducted by the faculty proper?

It is claimed in this circular, that the colleges of New York and Philadelphia have a course similar to this spring course. This is a grave error. There are associations of lecturers, occupying an indefinite and unofficial relation to the medical colleges in these cities, but these lecturers do not constitute, in any case on record, the faculty of these colleges. In some of these summer school faculties, there are to be found *a few* of the regular professors, but in most of them the college is very partially represented indeed. In this spring course, *all* of the faculty are included. So far as is known, there is but one college in America, wherein two courses are given annually by the faculty proper, but their second course is complete and not elementary. In this college, the fee is, by a coincidence, the same as that demanded for this spring course.

Students attending this course of the University are not to be allowed their diplomas, until the spring of 1870. If the student pays the fees demanded, endures successfully the trying ordeal of this final examination, it is but just and right that his diploma should be given to him without delay.

It is very unpleasant to write in regard to this matter, as has been done, but the writer would justly forfeit all claims to respect, if he allowed his kindly relations towards the members of the faculty of the University, or his delicate relations as a teacher in other schools of medicine, to prevent a *full* discharge of his manifest duties as a journalist. As a public journalist, he is compelled to call attention to this movement and to review it impartially, carefully and courteously. This new policy inaugurated is, in his humble judgment, most injurious and manifestly dangerous. It is dangerous to the student; it is dangerous to the profession; it is most dangerous to the University; for if it be persisted in, it must destroy the esteem and confidence of all physicians, whose esteem and confidence are desirable. If persisted in, the time will not be far distant, when, over the portals of this venerable Institution, the profession will write that ominous word, ICHABOD—the glory of this house has departed.

MISCELLANEOUS.

"Non Omnes Eadem Mirantur Ament Que."

DR. PAUL F. EVE—ANALYSIS OF HIS LIFE.—This venerable and distinguished physician and surgeon was born near Augusta, Georgia, 1806. He graduated at the Franklin College, University of Georgia, Athens, Ga., in 1826; receiving, soon after, the title of A.M. Adopting the study of medicine, as the field of his future labors, he pursued his work vigorously and graduated, in 1828, at the University of Pennsylvania. He went to Europe, in 1829, being in Paris during the revolution of 1830 and witnessing the historic "three days," July 27th, 28th and 29th of that year. In 1831, Dr. Eve volunteered in the Polish army and served, throughout the revolution of nine months, with distinction. Returning to America, in 1832, he was at once elected Professor of Surgery in the Medical College of Georgia, and filled this chair with great credit for eighteen years. During his connection with that Institution, the class increased from thirty to one hundred and seventy-nine students, a number to which it has not since attained.

In 1850, he was elected to the chair of Surgery in the Medical Department of the University of Louisville. He served in this position for one year and resigned, under circumstances unnecessary to mention; the resignation, however, was highly creditable to himself. He was then elected to the chair of Surgery in the University of Nashville and occupied this position, with distinction, for seventeen years, the class increasing from one hundred and twenty-one to four hundred and fifty-four. His disconnection with this University occurred in 1868, and under circumstances familiar to the profession; these circumstances being such, as in the judgment of his friends, fully justified his entire action in the premises. In 1851, Dr. Eve was invited to occupy the chair of Surgery in the University of New York; this chair having been then vacated by the death of Dr. Granville Sharp Patterson. In 1857, he was elected President of the American Medical Association and occupied the chair at the meeting of that body in Washington, D. C., 1858. Dr. Eve issued, in 1857, his work, "Remarkable Cases in Surgery." This excellent volume is not sufficiently known to the profession. It has been prepared with care, judgment and skill, reflecting great credit upon the distinguished author.

From 1829 to 1867, inclusive, Dr. Eve enjoyed superior advantages abroad, having, during this period, crossed the Atlantic twelve times. The Southern Medical and Surgical Journal was edited by Dr. Eve for five years, and he filled the position of assistant editor of the Nashville Journal for ten years. During this period, Dr. Eve made most valuable contributions to these periodicals and during his life he has contributed over one hundred papers to the medical literature of America. Dr. Eve has practiced surgery, almost exclusively, for nearly thirty years, and has taught surgery for a longer period than any living professor in America.

In the protean operations of a life time, he regards the removing of a nail from the bronchus as his best, and considers that the best improvement devised by him is that of a canula needle, as now made by Tiemann & Co., of New York. No one has operated more successfully for the removal of urinary calculi and very few as frequently. His statistics are not prepared fully on this subject. In fifty-seven cases of lithotomy, cut bilaterally, only two died; or one in twenty-eight and a half cases. He has operated over one hundred times, though the details of only fifty-seven cases have been as yet prepared. In October, 1868, Dr. Eve accepted the chair of Surgery, in the Missouri Medical College, at St. Louis; this chair being made vacant by the death of Dr. Joseph McDowell. This position he is now filling, with distinction and acceptability. In the autumn of 1868, Dr. Eve united with other prominent physicians of Nashville, Tennessee, and reörganized the Medical Department of the Cumberland University, at Nashville, (in which college he now represents the chair of surgery.) After having served with great assiduity, for forty-one years, Dr. Eve is still hale and vigorous, and, humanly speaking, has before him many years of usefulness and distinction. Few surgeons, at his age, can "thread" a cambric needle at arms' length; a feat whicn he often performs, for the amusement and surprise of his friends. As fulsome adulation or even unnecessary eulogy is as distasteful to Dr. Eve, as its preparation would be impossible with the writer, this analysis has been confined strictly to a narration of facts. It is to the credit of this venerable surgeon, that, a simple narration of facts constitutes his best eulogy; rendering unnecessary any further action, for placing him in the front rank of distinguished surgeons.

Lactation by a Woman Sixty Years Old.—Dr. William Gillespie, of Virginia, records in the Boston Medical and Surgical Journal, the case of a widow lady, aged about sixty, whose daughter having died, leaving a child two months old, took the child and tried to raise it by feeding. The child's bowels became deranged, and being unable to procure a nurse, and her breasts being large and full, he advised her to apply the child, in hopes milk would come. She followed his advice perseveringly, and, to her astonishment, a plentiful secretion of milk was the result, with this she nourished the child, which afterwards became strong and healthy.

MILITARY SUPERVISION OF MEDICAL SCIENCE—A CURIOUS RELIC OF THE PAST.—*Headquarters, District of Henrico, Richmond, Va., March* 1, 1866. *Editor of the Richmond Medical Journal*—SIR: In compliance with General Order No. 12, dated Headquarters, Department of Virginia, February 26th, 1866, a copy of which is herewith enclosed, you will forward, by mail or carrier, to Major General A. H. Terry, Commanding Department of Virginia, a copy of each issue of the *Medical Journal, on the day of the publication of the same.*

By Command of Bvt. Maj. Gen. Turner.

P. A. DAVIS, Asst. Adjt. General.

A DISEASED spleen has been sent to the museum of Toland Medical College, by Drs. Plan and Baily, of Watsonville. It weighed between nine and ten pounds when taken from the body. The patient had leucocythemia prior to death. The organ was adherent to the diaphragm, the abdominal walls, and the left lobe of the liver.—[*Ex.*

PROFESSOR JAMES R. WOOD recommends the following styptic in hæmorrhages: ℞. Liq. Ferri Persulphat, ℥j; Alumen, q. s., so as to form a paste.—[*Ex.*

DR. CHAS. L. IVES, of New Haven, has succeeded the late Dr. Worthington Hooker, as Professor in the Yale Medical School.—[*Ex.*

MEDICAL NEWS.

"Nulla Dies, Sine Linea."

THE DOMINION MEDICAL JOURNAL.—This is a new monthly periodical of twenty-two pages, published in Toronto, Canada, and edited by Llewellyn Brook, M.D. We wish it success.

THE COLLEGE OF PHYSICIANS AND SURGEONS.—This old and distinguished society was reörganized on Monday evening, January 11th. The proceedings were confined chiefly to elections, the results being as follows: For President, Dr. L. Powell; Vice President, Dr. A. B. Cook; Corresponding Secretary, Dr. Richard Cowling; Recording Secretary, Dr. Edward Palmer; Treasurer, Dr. J. M. Holloway; Curator, Dr. T. P. Satterwhite; Librarian, Dr. D. Yandell; Censors, Drs. L. Rogers, R. C. Hewitt, L. Brandies, J. A. Ireland.

Several physicians who have moved to this city, during the past year, were elected members. The society will meet, hereafter, on every Monday evening, and under its present most excellent organization, it will accomplish great good to all who may participate in its proceedings. Every physician of the city should be a member.

LOUISVILLE OBSTETRICAL SOCIETY.—This excellent and vigorous society held its last anniversary meeting, November 7th, at the residence of its president, Dr. L. Brandeis. The valedictory of the retiring president was regarded by all as an admirable and happy effort, and the president for the next year, Dr. G. W. Ronald, occupied the vacated chair, with appropriate and excellent remarks. The officers of the society for the present year are as follows: Dr. G. W. Ronald, President; Dr. J. Goodman, Vice President; Dr. W. H. Newman, Secretary; Dr. J. A. Octerlony, Librarian and Curator. At the close of the proceedings, the society was handsomely entertained at the residence of its retiring and most hospitable president. Many invited guests were present, and this most pleasant and social reunion passed off to the satisfaction and marked gratification of all. The editor acknowledges, with pleasure, the courtesy extended to him and predicts for this society a career of distinction and success.

LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.—This society has held its meetings, semi-monthly, with great regularity and success. The roll of members has steadily increased, and the debates have been instructive and pleasurable. So far the principal speakers have been Drs. Powell, Holloway, Brandies, Breckinridge, Cook, Octerlony, L. P. Yandell, Jr., Hornor, Johnston, etc. The subjects debated have been scarlatina; locomotor ataxia progressive; and tuberculosis. The society meets every other Saturday evening at half past seven o'clock.

New Orleans School of Medicine.—A supplementary course of lectures will be given by four of the adjunct professors of this school, during the coming spring. The advantages promised are great and the promises are made by those with whom a promise is equivalent to its fulfillment. The fee for this course is very reasonable, viz: $50. See advertisement.

Kentucky State Medical Society.—The next annual meeting of the Kentucky State Medical Society will take place, at Lexington, Ky., on the first Tuesday in April, this being the 6th of that month. The physicians of the State are earnestly invited to attend, as business of great importance will be submitted for consideration and action. All who may be unable to attend and desire to have papers presented will forward them to Dr. Stanhope P. Breckenridge, Secretary, Louisville, Ky.

EDITORIAL.

"Nullius Addictus Jurare in Verba Magistri."—Hor.

The space devoted to the usual monthly editorial is surrendered for the purpose of doing justice to the memory of Dr. A. E. Peticolas. This most excellent tribute has been prepared by Prof. L. S. Joynes, of Richmond, Virginia.

Died—At Williamsburg, Va., on the 27th of November last, Arthur E. Peticolas, M.D., superintendent of the Eastern Lunatic Asylum, formerly Professor of Anatomy in the Medical College of Virginia, and recently Professor of Anatomy in the New Orleans School of Medicine.

The subject of this notice was born in Richmond, Va., in the year 1824, and was consequently aged about 44 years at the time of his death. He received his medical education in the Medical Department of Hampden Sidney College, (now the Medical College of Virginia), where he graduated in March, 1849. Though commencing his professional studies under many disadvantages, he may be said to have entered at once upon a career of distinction. At his graduation, he received a gold medal awarded by the faculty for a prize essay on aneurism, and was chosen resident physician to the Infirmary connected with the College—an appointment always conferred as a reward of merit. During the same year, he was appointed demonstrator of anatomy, and in the following spring became lecturer on materia medica and therapeutics in the summer school attached to the College. His associates in this organization were Doctors Gibson, Tucker, Maupin, Conway and Carter P. Johnson; and the fact that he was deemed worthy to be associated with such men in the business of instruction, at so early a period after his graduation, affords the best proof of the estimation in which his talents and acquirements were held.

In the autumn of 1854, the professor of anatomy, Dr. Johnson, having met his death by the loss of the steamer Arctic, on which he was returning from Europe, Dr. Peticolas was appointed by the faculty to deliver the lectures in that department, during the ensuing winter course, and in the following March, he was duly elected by the board of visitors to the vacant professorship. He discharged the duties of this position with signal ability and fidelity for eleven years, though in a perpetual struggle with physical suffering, inflicted by frequent attacks of asthma, in its most aggravated form.

At the commencement of the war, he received a commission as surgeon in the army of the Confederate States, and was soon after assigned to duty as a member of the board established at Richmond for the examination of surgeons and assistant surgeons, in which position he remained until the termination of hostilities.

The increasing inroads of his relentless disease upon his strength and spirits drove him at length to seek relief in a change of climate, and, with this view, he accepted, in the summer of 1867, the offer of the chair of anatomy in the New Orleans School of Medicine, and bade adieu to the Institution with which, in various relations, he had been so long connected. His hopes of amendment, however, were doomed to disappointment, and he resigned his position in New Orleans at the close of his first course. Returning to Richmond, he resumed the practice of his profession, and about one year ago, without solicitation on his part, he was elected superintendent of the Eastern Lunatic Asylum, at Williamsburg. Here he applied himself with characteristic energy and zeal to the work of improving the condition of the Institution, and ministering to the relief of the unfortunates committed to his care. In the midst of these useful and beneficent labors, his earthly career was brought to a sudden and melancholy close.

All who enjoyed the acquaintance of Dr. Peticolas will bear willing testimony to the vigor and clearness of his intellect and refinement of his tastes, and sterling moral qualities. It was his unquestioned merit which alone won for him the successive advancements which marked his professional career, for he had none of the adventitious aids of fortune or social influence to speed him on the road to success and distinction. His information in all departments of medical science was uncommonly extensive and accurate, and his opinions well matured. As a public teacher, while he could not boast of those brilliant and showy qualities which fall to the lot of a favored few, he was remarkable for the perspicuity, force and effectiveness of his style, and for the thoroughness and fidelity of his instructions. As a surgeon, his judgment and skill commanded the highest respect and confidence of his professional brethren, though his want of wordly tact, his honesty and straight-forwardness of character, which made him a stranger to the arts and wiles of self-advancment, and his precarious health, prevented him from attaining that large pecuniary success which would have been the merited reward of his high qualifications.

His diligence in the acquisition of knowledge was not limited to the range of professional study, but enabled him to accumulate a large and varied store of general information, and his literary accomplishments were highly creditable alike to his industry and his taste. He wrote with equal fluency and vigor, and during his early manhood, he was connected with the editorial staff of the Richmond Examiner, which owed much of its *éclat* to the productions of his effective pen. He inherited a talent for painting, which he improved to some extent by cultivation, and which would have enabled him to achieve distinction as an artist, if he had devoted his life to the development of his natural gift.

While bodily suffering and mental anxiety threw a tinge of melancholy over his character and imparted to his manners a habitual reserve which was unattractive to the stranger, the sincerity and real kindliness of his nature won for him the cordial esteem and affection of those who knew him most intimately. Few men could boast of more warmly attached friends—friends who were ever ready to prove themselves such, not only by kind words but by serviceable deeds. The deep regret which these friends feel at his loss is shared by all who are familiar with the history of his life, who have a heart to sympathize with its struggle and trials, and who are capable of appreciating mental excellence, adorned by integrity and truthfulness of character.

THE AMERICAN JOURNAL OF OBSTETRICS, N.Y.—The November number of this Journal was received, on the 28th of December; after the January issue of the Richmond and Louisville Medical Journal had been printed, and, consequently, too late to have the present paper appear earlier.

As explanatory to those who have since become subscribers to this Journal, it is proper briefly to state, that in the August number of the Obstetric Journal, its junior editor, Dr. B. F. Dawson, charged the writer with culpably appropriating the material of the Obstetrical Journal, without proper acknowledgment; stating that no first-class journal would be guilty of such conduct; that an article written by Prof. Thomas had been appropriated; and reflecting, in an inexcusable manner, on the policy and bad management of "the guilty editor," the present writer. The reply was simple: that the error was due to an oversight of the printer, whose rule, similar to that adopted in all publishing houses, was to give credit always; that instructions to this effect had been given by the editor to the publishers; that in printing the article mentioned, the Obstetric Journal was, as a whole, placed for guidance in the hands of the publishers; that the article of Prof. Thomas had been published in the *eclectic* department and under the motto *carpere et colligere*, rendering it impossible for any one to regard it as original matter; that in the Journal, for July, the Obstetric Journal had been credited with the paper of Prof. Thomas, in a complimentary welcome to this the first number of the Obstetric Journal; that Dr. Dawson was mistaken, in supposing that no first-class journal failed to give, uniformly, a proper credit for matter selected, as this error was made by all journals, (a list of them, in which the omission occurred, being given,) the Obstetric Journal included, for in its first number, there were three articles published under the caption of "abstracts," for which no credit had been given; the reply being concluded with some very wholesome advice which the writer perceived Dr. Dawson very manifestly needed, etc.

Dr. Dawson after a period of prolonged gestation, very appropriate in an obstetric editor, is, at last delivered; but, judging from the character and appearance of the offspring, the gestation has been insufficient, and the product of conception is unquestionably discreditable to the parent, and a source of disappointment to his friends.

When the writer ridiculed Dr. Dawson's original attack, he published this attack in full. In return for this courtesy and fairness, Dr. Dawson did not suppress the the writer's article, but did what was far worse, he issued such garbled extracts as suited his purposes; misrepresenting the whole tenor of the original paper. After being, in the last number of the Obstetric Journal, *personally* offensive, he states that "he will in no manner notice, *publicly*, any private or published reply from Dr. Gaillard." As this declaration warranted the assumption, that he would notice *privately* any reply made, he was (several weeks since), by a letter of a few lines, appropriately denounced; but it appears that there is to be, privately, as well as publicly, an evasion of this whole matter.

The writer has been forced, dragged into this field, and when accepting the issue, he has endeavored to meet it, he who selected the field has summarily retreated from it. There is but one parallel course of the kind known to the writer. It is where the knight of the sawdust ring, in appropriate costume, noise and bluster, makes his attack upon the whip-bearer, just when premeditated escape seems easy and certain; but the lash comes down, and the retreating party learns the wisdom of the military aphorism, that retreat is only safe where the rear is well protected. The parallel is complete in all of its details, the target included; it remains to be seen, whether the lash can be as dexterously and as accurately applied.

Dr. Dawson having once said that the article in the *eclectic* department of this Journal would be regarded by the profession as *original* matter, (though the article was thus published and placed after the Latin motto *carpere et colligere*), now states that he is of this opinion still. Like the soft-brained Manhattan burgher, who, as a witness in court, stated, that if he had said the horse in dispute was sixteen feet high, he "would stick to it," regardless of comments or consequences. Dr. Dawson asks, "is it idiotic to suppose that Prof. Thomas contributed," as *original* matter, the article in the *eclectic* department of the Richmond and Louisville Medical Journal? The answer is certainly not complimentary, but it is at least true; yes, very.

What will the profession think of the estimate formed of it by Dr. Dawson, when he asks, what is the object of giving proper credit for *selected articles*, if it is not to prevent the reader from supposing that the articles are *original!!!* This answer is equally simple. The credit is not given to prevent any one from supposing that *selected* matter is *original*, but to indicate the journal entitled to "the credit" of having first published the article. This reply is only intended for Dr. Dawson; no one else needs such information. Sometimes the printer forgets to make this credit, but no one, but Dr. Dawson, supposes that such *selected* matter is ever claimed as original.

Dr. Dawson is in great perplexity over the Latin mottoes of this Journal. He says that physicians can not understand them; or "how many are able to do so, if they desired?" Is there any school boy, in his Latin-reader, who can not translate them at a glance? Is it not a libel on the profession to state, that they are unable to read them with facility? Dr. Dawson's great error is in supposing, that in point of education, he is a fair type of his profession. His desire to have these Latin mottoes omitted, because he has lost his ability to translate them (for he construes *carpere et colligere* to mean an original paper from Dr. Thomas) is ludicrously suggestive of the fox, (in the fable,) who had lost his tail; who was unable to appreciate the object and advantages of such a possession; who asserted that it was unnecessary, and that it was better to be without it. His companions, however, to whom this sly appeal was made, could not take this view of the subject; they intimated, that the sentiments offered were not genuine, but were due to the loss sustained; and they became most unpleasantly impressed, by the indelicate exposure so ludicrously manifest in their unhappy companion.

Dr. Dawson is also troubled about the associate-editors of this Journal and is evidently desirous of knowing the relations they bear to it. In the absence of such information, he singularly says that he "well knows they are only probable contributors," etc. The facts are, that Dr. Dawson really knows nothing of the matter, though he states that he "well knows." The relations of these distinguished gentlemen to the Journal, were arranged by private correspondence, the privacy of which no one else has been indelicate enough to tresspass upon. The only reply the writer deems necessary is to refer Dr. Dawson to the history of the individual, who improved his social as well as his pecuniary condition, by attending to his own business. In the story of Paul Pry, nothing saved this unenviable character from injury and natural disgust, but his harmlessness and the comic direction of his prurient and persistent curiosity.

Dr. Dawson states, that these Latin mottoes which are a source of such sore perplexity to him (and so unintelligible in his opinion to the profession) are published by the writer, conjoined with the list of distinguished associate-editors, because (to use Dr. Dawson's classic phraseology) "it sounds big," and "throws dust in the eyes" of the Journal readers. Now this chaste and classic word "big" is relative, in its application and meaning: the youth is "big" to the child, but small to the man; and primer-reading seems "big" to the uneducated, while it appears to be a very humble feat to those of ordinary intellect. The association of these editors with the writer may "sound big" to Dr. Dawson, but not (it is hoped) to any one else, and these Latin mottoes may seem "big" to him, but are certainly too simple to appear more than elementary to those of usual intelligence. Dr. Dawson believes, evidently, that he has detected and exposed the writer in the nefarious scheme of "throwing dust" in the eyes of the Journal readers; that this exploit of his is quite a brilliant achievement and must injure the Journal most seriously. To show the writer's estimate, however, of his own baseness and the enormity of his sly trespass upon the credulity and confidence of the Journal readers, he publishes the whole matter, for their amusement and information. What is Dr. Dawson's estimate of medical men, when he believes that the introduction of a few simple Latin phrases and the publication of the names of a few prominent gentlemen, as associate-editors, will seem "big" to Journal readers, and "throw dust in their eyes?"

Now for something more illustrative still of the mental calibre of this unfortunate junior editor of the Obstetric Journal. His fairness; his courtesy; his firm stand in the field to which he invited the writer; his objective obstinacy in adhering to the palpably absurd opinion that physicians do not understand the meaning of the word eclectic; his remarkable erudition in the Latin tongue; his prying curiosity into the private editorial relations of the writer; his brilliant detection of the editor, while engaged in "throwing dust in the eyes" of Journal readers, etc., etc., have been refreshingly discussed; now for the erudition of Dr. Dawson in his own tongue.

Dr. Dawson asserts, with distinguished good breeding and polished courtesy, that the writer "*made false statements*" when publishing the fact, that he (Dr. Dawson) failed to give credit for *three* articles contained in the first issue of the Obstetric Journal under the head of "abstracts." He assures the public, that he did give credit for every article published, whether these articles were "abstracted, borrowed or appropriated." The three articles published by him, under the head of "abstracts," in the May number of the Obstetric Journal and not credited to any work, were he, says, not "abstracts" (though published under that caption) but "condensed translations." Can it be believed that any one of the most humble powers of apprehension could make so childish a blunder? What are "condensed translations" but, essentially and pre-eminently, "abstracts"? This distinguished writer and Latin scholar has confounded the meaning of the word "abstract" with that of extract. He does not actually know the meaning of the word (English, not Latin) that he has selected to represent a whole department of his journal. Giving him, however, the advantage of the fallacy, transparent to every one else, that those "condensed translations" are not "abstracts," the question is naturally asked, why, as "translations" did they not receive the credit asserted to have been given for every thing published "whether abstracted, borrowed or appropriated"? Hear his excuse: "They were only three small notes, making exactly a page." A melancholy and plaintive plea, certainly. Who does not recall the boy's plea to the "Justice," when palpably convicted of theft; "it was only a shillin' yer honor, only a shillin'." Is the size and value of the article appropriated to be the measure of the crime? Hear that plaintive plea: "only three small notes," gentlemen; "only three small notes, making exactly a page."

As, to all who understand the English language, "condensed translations" are "abstracts," and as these "abstracts" *were published without credit,* the reader can decide the nature of "the false statements," of which the writer is accused.

Dr. Dawson stated that no first class journals published articles, without giving proper credit. The writer gave him a list embracing almost every journal in America, stating that all of these journals were amenable to the judgment and displeasure of this dogmatic critic. What is the result? He will not be bound by his premises, but pitiably evades the whole issue.

In the exercise of a liberal charity, these puerile blunders of Dr. Dawson are attributed, by the writer, to mental weakness, and not to moral obliquity. They are evidences, simply, of folly, and not of falsehood. They betoken an ignorance of what is right, and not a disposition to do what is wrong. Their author is unquestionably a fit subject for comedy, but manifestly too poor an object for serious criticism. He so appeals to one's compassion, as to escape one's contempt and is too deserving of charity to be made an object of condemnation.

In making an analysis of the whole paper of Dr. Dawson, it seems that his statements prove to be untenable and that his attempts at pleasantry indicate a characteristic effort at imitation. Indeed it may well be said of him, in the language of Sheridan, that "the gentleman has drawn upon imagination for his facts, and upon memory for his wit." His article is largely made up of extracts and, excluding his many errors, mental, moral and professionnl, there is but little left that may be called his own production; errors constituting its only claim to originality.

There was a Brahmin student who, as he wrote and studied in his library, became annoyed at the buzzing and teazing of a *blue-bottle fly.* After enduring the annoyance for a season, he lost his equanimity, temporarily, and determined to crush the troublesome pest; but when he had mastered it and held it in his grasp, he was moved with compassion for its weakness and its helplessness and determined to let it go. Passing to the window and raising the sash, he thus addressed his helpless little victim: Poor creature! this world is large enough for thee and me; I will not crush thee; go in peace. He released the miserable pest and returned to his study.

BOARD OF HEALTH.—This body has just been reörganized, by the election of officers. The result of the election is as follows: Drs. J. E. Crowe, T. S. Bell, James M. Holloway, Lewis Rogers, J. O'Reilly and H. D. Pope. Dr. Crowe was elected president. The Health or District Inspecting officers elected by the Board are as follows; Drs. Shadbourne, D. S. Reynolds, Wiley Rogers and Mr. White; Health officer, Dr. Alexander Penny; Clerk of the Board, Dr. Samuel Manly.

Dr. Holloway is entitled to the thanks of the public everywhere, for his praiseworthy effort to elevate the efficiency of sanitary inspection, by proposing that candidates for such work be subjected to an examination. Could this be done, the efficiency and respectability, personal and professional, of such officers, would be always secured. The community here, as has been the case everywhere, would be impressed with the inestimable value to life, health and business prosperity of having sanitary inspectors, who are thoroughly educated and scientific men. The statistics of London, Edinburgh, Berlin, Paris, New York and all other cities, wherein scientific sanitary inspection has been, in good faith, executed, demonstrate the fearful results which uniformly accompanied ignorance and stupidity in sanitary officers; where the election of such officers was secured by despicable political trickery, or by debasing appeals to the lowest instincts which degrade and disgrace humanity. Scientific sanitary inspection secures hygienic improvement in an entire city; it secures increased and increasing health; it decreases the mortality of epidemics and unavoidable diseases; it improves the architecture, comfort and safety of houses, intended for the laboring classes, the great workers on whom society depends for all things; it secures the safety and healthfulness of public buildings; it extends the actual and average duration of life; it promotes business prosperity and increases municipal wealth. Such inspection should be and *must be* in the hands of thoroughly educated and scientific men. It is trifling with life, health and happiness to place it elsewhere. As is often the case, where sanitary officers are elected, without even a pretended reference to their capacity or professional efficiency, the great science of hygiene becomes a jest and a byword in all circles of a community; and the drivers of scavenger carts, as endowed with an educated sense of sight and smell, are very frequently the equals of the inspectors in the conception and discharge of the duties appertaining to their position.

It is indeed incomprehensible that, in the recent election of sanitary inspectors, Dr. Holloway's effort to secure scientific inspection, to improve the surroundings, safety and health of an entire community, to insure efficiency in public medical officers, did not receive the support of a single member of a Board of Health, which is composed, with three exceptions, of respectable physicians. Dr. Holloway is assured, that his effort meets with the entire approval and hearty concurrence of his medical brethren.

Of course, in the examination suggested, only those candidates would be subjected to the ordeal, whose record was not a *guarantee* of their being thoroughly educated and scientific men.

Dr. Holloway's policy is the true one; it is right and reliable and it must eventually succeed everywhere. Every detail connected with the health of a city should be in the hands of accurately educated physicians. Communities everywhere are recognizing this fact and physicians should educate them correctly on this most important subject.

This subject is interesting to the profession universally. The position of a sanitary inspector should be so elevated, by every medical board (blessed with this high privilege) as to make it worthy of the acceptance of experienced and thoroughly educated physicians. If the professionally uneducated make the terrible error of entrusting the lives, health, happiness and business prosperity of a community to inspectors who appreciate only the contemptible stipend usually allowed for this work, at least let those whose education and antecedents have been better teach a better lesson. How are the people to be educated upon those professional subjects appertaining to their physical health and well being, unless this is done by physicians of position and eminence? How can the public ever correctly realize the inestimable importance of scientific inspection, if physicians commanding their respect and esteem neglect to teach them this vitally essential lesson? The position of a sanitary inspector should not only be dignified and elevated, by an examination of candidates for the work, but the remuneration for such labor should be such, as to command the services of thoroughly educated and efficient physicians. Away with the democratic, popular and professionally debasing plea of economy in this connection; or if it is urged, let this be done by the ignorant and illiterate, and not by the well educated physician.

What blessings can be of equal importance, to a community, with those of life, health, freedom from pestilence and deadly atmospheric poison? How can such blessings be insured otherwise, than by scientific sanitary inspectors and how can such inspectors be secured, but by making their position and remuneration commensurate in dignity and character with that high degree of scientific excellence absolutely indispensable for the efficient discharge of their important duties? Are the tax gatherers and the dealers in mere matter and material to be amply remunerated by the city, while the representatives of brain-labor, skill and experience are to be debased by a paltry stipend, degrading to them personally and offensive professionally? The profession watches carefully the record of every medical man in a position of public trust or supervision, and is reasonably determined to hold him responsible, not only for the discharge of his actual duties, but for sustaining the credit and character of his calling. It is not often that medical men have the power or privilege of serving and teaching the public, and their brethren will insist upon it that they perform this duty well.

It is proper to say that the previous and present sanitary inspectors of this city are unknown to the writer, and that, in what has been written, there is nothing of a discourteous or personal nature intended.

THE NEW YORK MEDICAL JOURNAL.—Since this work has passed into the hands of the Appletons, *it has been improved in every respect.* The circular-advertisement of the publishers is stitched into the present number of this Journal. In reference to it, the reader will observe, that the New York Journal is said to contain more reading matter than any monthly in America; while, on the third cover page of the Richmond and Louisville Medical Journal, it is asserted, that this latter journal is "the largest medical monthly in America." Who is correct, the editor of this Journal or the publishers of the New York Journal. Here are a few facts. The New York Journal has *just* been enlarged; the Richmond and Louisville Journal was enlarged in July last, it being then the largest American medical monthly. The text type of the New York Journal is larger than that of the Richmond and Louisville Medical Journal; the space between the lines is greater; the number of lines on the page is less. The January number of the New York Journal contains 112 pages; the January number of the Richmond and Louisville Medical Journal contains 186 pages. The reader can judge whether or not this last

Journal is "the largest medical monthly in America." *It is competing with wealthy publishers*, but if its subscribers will discharge their obligations and continue their generous aid, the editor will make his work still more worthy of their support.

APHASIA.—A series of papers on this interesting subject has been contributed by Profs. Bemiss and Chaillé, of New Orleans. The clinical facts were given by Prof. Bemiss in the January number of this Journal. The pathology of the disease is given by the same writer, in this number. The interesting incidental question of the physiology of the cerebral circulation is elaborately discussed by Prof. Chaillé in this number also. The necropsy of the case will be given in the March issue. As these papers, if published in the same issue, would have excluded several of the departments of the Journal and as they are fully as interesting and intelligible separately presented, this course has been adopted.

THE editor acknowledges the receipt of a handsome copy of "The Physician's Pocket Record," from its author, Dr. S. W. Butler, of Philadelphia. It is very complete and admirable in all respects. The price is only $1.50, and every physician should have a copy of this useful companion.

ERRATA--VOL. VI.—Page 591, for permit read prevent; on page 598, for successary read necessary; on page 599, for deglution read deglutition; on page 600, for asthma read asthenia.

THE LATE DR. PETICOLAS—MEMORIAL PROCEEDINGS OF THE FACULTY OF THE MEDICAL COLLEGE.—MEDICAL COLLEGE OF VIRGINIA, December 1, 1868—At a meeting of the faculty, held this day, the following preamble and resolutions were unanimously adopted:

The faculty receive with deep regret the intelligence of the untimely and melancholy death of Dr. Arthur E. Peticolas, late Superintendent of the Eastern Lunatic Asylum, and formerly Professor of Anatomy in this institution; and, while the deceased was not connected in any manner with the college at the time of his death, yet as his active relations to it, in the several capacities of student, preceptor and professor, continued unbroken for a period of nineteen consecutive years, the faculty feel that it is peculiarly incumbent on them, as the representatives of the institution in which he laid his first offerings on the altar of science—to the service of which the energies and the enthusiasm of the best years of his life were devoted, and in connection with which he mainly achieved his well-earned distinction—to place on record their estimation of his services and his merits, and their sorrow at the melancholy termination of his career; therefore,

Resolved, That in the death of Dr. Peticolas, we mourn the loss of one of the most distinguished alumni of this college, whose services, first as Demonstrator and Lecturer and subsequently (for eleven years) as Professor of Anatomy, made ample return to his Alma Mater for the nurture which she had bestowed upon him, and won for himself that distinction which is the sure reward of talent, industry and faithful devotion to duty.

Resolved, That it affords us a sad pleasure to express our sense of the high intellectual endowments of Dr. Peticolas, his extensive and varied professional learning, his practical aptitude and skill—especially in the department of surgery—his accomplishments in the domains of literature and art, the heroic fortitude with which he braved the assaults of a relentless malady, and the courage with which he buffeted the waves of adverse fortune.

Resolved, That we offer to the family of the deceased the assurances of our warmest sympathy, in the bereavement which has suddenly fallen upon them.

Resolved, That the faculty will attend the funeral of the deceased in a body and invite the students of the college to unite with them in paying the last honors to his memory.

Resolved, That these proceedings be entered upon the records of the faculty, and published in the Richmond and Louisville Medical Journal and the daily papers of the city of Richmond, and that a copy of the same be transmitted by the Dean to the widow of the deceased.

DAVID H. TUCKER, M,D., Chairman.

L. S. JOYNES, M.D., Dean.

BOOKS AND JOURNALS RECEIVED.

Eve's Surgical Cases. By Paul F. Eve, M.D., Professor, etc. Philadelphia: J. B. Lippincott & Co. From the author.

Practical Observations on the Ætiology, Pathology, Diagnosis and Treatment of Anal Fissure. By W. Bodenhamer, A.M., M.D. New York: W. Wood & Co., 1868. From the author.

A Treatise on the Ætiology, Pathology, Diagnosis and Treatment of Congenital Malformations of the Rectum and Anus. By W. Bodenhamer, A.M., M.D. New York: W. Wood & Co. From the author.

Watson on Cod Liver Oil. Caswell, Hazard & Co., New York. From the publishers.

Chapman on Pyrophosphate of Iron. Caswell, Hazard & Co., New York. From the publishers.

Progressive Locomotor Ataxia. By Roberts Bartholow, A.M., M.D. Cincinnati, Ohio.

Annual Report of the Commissioner of Agriculture, 1868. From Dr. Toner, Washington, D. C.

Sclerose en Plaques Disseminee. Paris, 1868.

Scirrhus of the Rectum. By Alden March, M.D., Albany, New York.

Report of Seven Operations for Stone. By Paul F. Eve, M.D. From the author.

Physician's Pocket Record. From Dr. S. W. Butler.

A New Operation for Artificial Hip-joint in Bony Anchylosis. Illustrated. By L. A. Sayre, M.D. From the author.

Introductory Address, National Medical College, 1868-69. By Alexander Y. P. Garnett, M.D., Washington, D. C. From the author.

The Women's Hospital. Anniversary Address. By J. Marion Sims, M.D., 1868. From the author.

C. Caldwell M. D.

Hart & Mapother Lith, Louisville, Ky

THE RICHMOND AND LOUISVILLE

MEDICAL JOURNAL.

VOL. VII. MARCH, 1869. No. 3.

ORIGINAL COMMUNICATIONS.

"Qui Docet Discit."

ART. I.—EXPERIMENTS DESIGNED TO TEST THE VALUE OF MEDICAL PEPSINE AS AN AID TO ENFEEBLED DIGESTION AND TO DETERMINE THE PROPER MODE OF ITS ADMINISTRATION. By L. S. JOYNES, M.D., Professor of Physiology and Medical Jurisprudence in the Medical College of Virginia.

The employment of pepsine as a remedy for slow and imperfect digestion, which is now becoming so general, affords an interesting example of the application of the results of physiological investigation to the improvement of practical medicine. The physiologist having ascertained that the gastric juice contains a small portion of an animal principle that is essential to the digestive action which it exerts upon the most important nutritive constituents of the food—that this principle can be isolated by proper chemical means, and can also be extracted from the gastric mucous membrane of an animal recently killed—the idea naturally suggested itself that this substance might be administered with advantage as a remedy in cases of impaired digestion, presumed to be due to a deficient secretion of gastric juice, or to a defective constitution of that fluid. Accordingly, pepsine has been prepared for administration in the various forms of powder, wine, elixir, lozenges, etc. That its employment is sometimes beneficial, appears to be sufficiently proved by the experience of careful and judicious observers; but its frequent failure is a fact equally well established. It is worth while, therefore, to inquire whether the remedy is usually administered in the mode best calculated to secure the beneficial action of which it is capable.

The gastric juice is a decidedly *acid* fluid—analysis proving that it contains hydrochloric or lactic acid, or both, either free or in some state of association which does not prevent the manifestation of their acid properties. And experiments upon artificial digestion, performed either with the natural secretion extracted from the stomach of a living animal or man, or with an artificial imitation of it, prove that the acid is quite as essential to the digestive action of the gastric juice as the pepsine. A solution of pure pepsine in water, without the addition of an acid, is entirely powerless as a solvent of meat, albumen, or any other substance of the albuminous or proteinaceous class, upon which the gastric juice, as normally constituted, so readily acts. Again, if the natural gastric juice be treated with an alkali to the point of completely neutralizing its acidity, all its digestive power is lost, and albuminous substances mixed with it, instead of undergoing solution will pass into putrefaction, if the mixture be maintained for some time at the normal temperature of the human stomach (100° Fahr.) There can be no doubt, therefore, that the presence of acid is indispensable to the manifestation of the peculiar properties of the pepsine. I shall not undertake to discuss the nature of the relation between these two constituents of the gastric secretion; the *fact* is all that concerns my present purpose.

Some of the preparations of pepsine, designed for medicinal use, are declared by their manufacturers to be *acidified* to the degree necessary to enable them to represent the natural gastric juice in their action upon the food. Boudault, for instance, states that one gramme (fifteen grains) of his powder of pepsine ("*pepsine acidifiée*) is equivalent in power to twenty-five grammes (nearly one ounce) of gastric juice. Whether all the preparations, offered for medicinal employment, are similarly acidified, I am unable to say. But, judging from the brief statements which I have seen of the modes of preparation, I infer that some of them at least are not; for example, the wine of pepsine, said to be made by simply macerating the mucous membrane of the calf's or pig's stomach in sherry wine.

However, medical writers, who recommend the employment of pepsine as a remedy for impaired digestion, generally direct the pepsine, as offered by the apothecaries, *without the addition of any acid.* Desiring to test, experimentally the correctness of this practice, I took advantage of a recent opportunity afforded by the performance of experiments on artificial digestion, for the instruction of my class at the Medical College of Virginia, such as I am accustomed to exhibit annually in illustration of the lectures on the digestive function.

For the sake of comparative experiment, I obtained from one of our most reliable druggists the following preparations of pepsine: 1. Boudault's pepsine, in powder. 2. An American preparation (Hawley's), also in powder. 3. Boudault's wine of pepsine. 4. The American *liquid pepsine*, prepared by Hawley, (apparently without wine.) I found all these preparations to possess a greater or less degree of acidity. The two powders reddened moistened litmus paper in about an equal degree, though neither was decidedly acid to the taste. The American liquid pepsine was decidedly acid to the taste, reddened litmus paper strongly and yielded a distinct white precipitate with nitrate of silver, indicating the presence of hydrochloric acid. The wine of pepsine reddened litmus paper but slightly and had only the taste of sherry or some similar wine.

The following experiments were instituted, the first three being the customary experiments illustrating the essential conditions of digestion by the gastric juice, and the remaining four being designed to test the powers of the different preparations of medicinal pepsine. The results will, I think, be found worthy of the attention of practitioners:

Experiment 1. An artificial gastric juice was prepared by dissecting off a portion of the cleanly-washed mucous membrane of the stomach of a hog killed the day before, cutting the same into pieces from one-half to three-quarters of an inch square, and placing thirteen of such pieces in two ounces of water, to which were then added twenty-six drops of strong hydrochloric acid, equal to nearly three per cent. of the fluid. I then put into the mixture six pieces of lean roast-beef, cut in a cubical form, like dice, each estimated to weigh about half a drachm, making three drachms in all.

(I should here remark, that I am well aware that the above is not the proper mode of preparing a digestive fluid, with the view of developing its solvent power in the highest degree. The mucous membrane should first be macerated in cold water, from six to twelve hours, to extract the pepsine, and then strained off, and the acid added to the clear solution. The fluid is now ready for prompt and full action upon the food. I usually adopt the method above detailed, merely to save time. Of course, the action upon food is slower, because it cannot commence until some of the pepsine has been extracted from the mucous membrane by the action of the water, and it is some time before the fluid is sufficiently charged with that constituent.

Another circumstance to be noted is, that as the pieces of mucous membrane are allowed to remain in the fluid, after the addition of the acid, they are acted upon and digested, like the meat which is added at the same time —a fact which serves, perhaps, to exhibit more strikingly the digestive powers of the fluid, although its action upon the food is less complete, because the activity of the solvent fluid is partly expended upon the mucous membrane, instead of wholly upon the food. Experiments performed in this mode will always yield sufficiently satisfactory results if conducted with due care.)

The mixture prepared as above described was carefully maintained at a temperature of about 100°F., with frequent stirring, for three hours, and remained some time longer in a cold room, where the temperature was too low for any decided chemical action.

Result. The thirteen pieces of mucous membrane had disappeared, having undergone complete solution, except that two or three delicate white films were visible, these being the remains of the epithelial covering of some of the pieces. The pieces of roast-beef were to a great degree disintegrated and reduced to shreds, which were so softened that the slightest pressure reduced them to a complete pulp. From the manifest diminution of bulk, it was evident that part of the muscular substance had been dissolved by the fluid—though, exactly how much, no attempt was made to ascertain. The mixture was of a brownish red color, opaque and turbid, from the quantity of disintegrated animal matter diffused through it, and resembling in appearance a rich broth.

Such is a fair sample of the action of a digestive fluid, containing both pepsine and acid in sufficient proportion. The disintegration and solution of the meat would have been more complete, if the proper temperature had been longer maintained—say for six hours; but the experiment was carried far enough for purposes of comparison.

Experiment 2. To two ounces of water were added thirteen pieces of mucous membrane and six pieces of roast-beef, as before, *but no acid;* heat regulated and continued as in experiment 1, the two glasses being placed side by side.

Result. Neither the mucous membrane nor the meat exhibited any trace of a proper digestive action. All the pieces of each retained their form and bulk unchanged, except that they were slightly swollen from the imbibition of fluid, and they were not more altered in consistence than they would have been by maceration in pure water for the same length of time and at the same temperature. The transparency of the fluid was scarcely disturbed.

A simple aqueous solution of pepsine, therefore, was shown to be devoid of digestive power.

Experiment 3. To two ounces of water were added twenty-six drops of hydrochloric acid, as in experiment 1, *but no mucous membrane;* same quantity of beef as before. The conditions were, therefore, the same as in experiment 1, except the absence of pepsine. Temperature, &c., as in the other experiments.

Result. The pieces of roast beef exhibited a commencement of disintegration, apparently from the partial solution of the areolar tissue connecting the muscular fasciculi. The fibres themselves were but slightly softened; the liquid not at all turbid.

It was evident, from this result, that water acidulated with hydrochloric acid, possesses but a slight solvent power as to animal flesh at the temperature of the body, but superior to that of a solution of pepsine without acid. At a *high temperature*—150° or 200°F.—it is well known that the action of the dilute acid becomes much more decided, but it is also well established that the solution thus effected is by no means the equivalent of that resulting from the action of the natural gastric juice, or its artificial representative, the substances dissolved not being brought into the *same condition* in the former case as in the latter, for want of the peculiar transforming influence which pepsine exerts when conjoined with an acid.

Experiment 4. One drachm of Boudault's pepsine, in powder, was mixed with two ounces of water.

Experiment 5. One drachm of Hawley's American pepsine, in powder, to same quantity of water.

Experiment 6. One ounce of Boudault's wine of pepsine was diluted with one ounce of water.

Experiment 7. One ounce of Hawley's liquid pepsine was in like manner diluted with an equal measure of water.

No acid was added to any of these mixtures, but roast-beef was added, in the same amount and form, as in the first three experiments, and the conditions as to temperature, stirring, etc., were precisely the same.

Result. The effect upon the meat in these several trials was *almost null*, except in the case of the American liquid pepsine, which, as I have already stated, is perceptibly acid to the taste and evidently contains hydrochloric acid. In this there was a manifest, but not very considerable, softening of the pieces of meat, which, however, retained their form, and were but little, if at all, broken down. The result was much more decided than in the case of the solution of pepsine (or infusion of mucous membrane) *without acid*, employed in the second experiment, but vastly less so than in the case of the artificial gastric fluid employed in experiment 1, and prepared with fresh mucous membrane and hydrochloric acid. As to the wine of pepsine, and the two forms of pepsine in powder, the effect of the solutions prepared with them seemed hardly more decided than would have been produced by the action of tepid water. There was, perhaps, a slight softening of the meat, but the effect was altogether inconsiderable. The wine appeared to be the feeblest preparation of all, in accordance with its inferior degree of acidity.

I should here state that in the experiments with the powdered pepsine, there remained in each case a considerable amount of the powder undissolved by the water, this residue consisting of the starch which is added to the pepsine in the process of manufacture to facilitate the drying and pulverization. It was deemed unnecessary to filter off this residue, as it could not interfere with the action of the pepsine nor be itself affected by it.

The necessary inference from the results of the foregoing comparative experiments is, that the preparations of pepsine offered to us by the pharmaceutist for medicinal use do not truly represent the digestive powers of the gastric juice, owing to the want of a due proportion of an essential ingredient, and that, in order to give them the activity which is claimed for them, we must supply the deficiency, by prescribing them in conjunction with a certain proportion of hydrochloric acid or lactic acid. I say *hydrochloric or lactic acid*, for it is still a matter of dispute among physiologists whether the acidity of the natural gastric juice be due to the one or the other of these acids, or both together; and experiments upon artificial digestion show that either, in conjunction with pepsine, will make an efficient digestive fluid. The hydrochloric, however, in such experiments, appears to be the more active of the two, and on this account, as well as because of its well-marked tonic properties, it ought perhaps, to be generally preferred to the lactic.

If we could feel certain, in any case, that there existed a due proportion of acid in the secretion of the stomach and that the pepsine alone was deficient, it would be rational practice to prescribe pepsine by itself; but how can we be certain of this? Ought we not rather to infer that if one constituent of the scretion be deficient, the other is equally so?

Having reached the conclusion just now enunciated by the *negative* way, by observing the failure of pepsine unaided by acid, I next sought to test it *affirmatively*, to ascertain whether the same pepsine, with the addition of a due proportion of acid, would exhibit more satisfactory digestive powers. After the conclusion of the experiments just detailed, I placed the mixtures prepared with the different samples of medicinal pepsine in a room where the temperature was too low for any further digestive action, as well as for the occurrence of putrefaction. On examination, after the lapse of nearly two days, (the earliest moment at which I could find leisure for further experiment,) I found matters *in statu quo*. No further perceptible change had taken place in the meat, nor was there any trace of decomposition. I now added to the contents of each glass twenty-six drops of hydrochloric acid, the same quantity employed in experiment 1, except that to the mixture made with the American liquid pepsine I added only twenty drops, because the acid already existing in it seemed to require a less addition to render it as strongly acid as the others. The temperature was then raised to 100°F. and so maintained for three hours.

At the end of this time, a decided and unmistakable digestive action was manifest in each instance, the meat being softened and more or less disintegrated. The

American liquid pepsine still held the front rank, indisputably. The two preparations in powder seemed so nearly equal in effect, that it was impossible to say that either was superior to the other. The wine of pepsine was still found wanting in the comparison, its inferiority to the other preparations in digestive effect being apparent on the slightest examination. Perhaps it would be wrong to infer that the vinous infusion is always and of necessity a feeble preparation. The particular sample submitted for trial may have been carelessly prepared.

It is proper, however, that I should add that in none of these experiments with artificial pepsine was the result by any means equal to that obtained with the digestive fluid employed in experiment 1, nor was there any near approximation to it, except in the case of the American liquid pepsine. Perhaps the powers of the pepsine are impaired in the processes of preparation, or lost to some extent by keeping. Like nitrogenized animal substances generally, pepsine is readily susceptible of change, and there is no doubt that, as freshly extracted from the stomach, it will be found superior in remedial action to that which has been kept for months or years in the shops.

With regard to the addition of acid in prescribing it, I may further remark that the gastric juice of the carnivorous animal is much more acid than that of the herbivora, and as pepsine is administered with a special view to promoting the digestion of *animal food*, the indications of comparative physiology are here in accord with the results of experiment.

In conclusion, I would suggest the inquiry whether the stomach of *the calf or sheep* is the proper source from which to obtain pepsine for medicinal use? Pepsine is not a principle of such fixed and definite chemical characters but that it may be subject to some *modifications*, as furnished by the stomachs of different animals; modifications affecting in a material degree its action upon different classes of aliments; and, when we employ it as an aid to human digestion, is it advisable to extract it from the stomach of an animal into whose food animal flesh never enters? Ought we not rather to obtain it from an animal which is *omnivorous*, like ourselves, namely the hog? The manufacture of "*pepsina porci*" offers a fair field for the enterprise and skill of the pharmaceutists of our Western cities.

Art. II.—NECROPSY OF A CASE OF APHASIA. Reported and Analyzed by Profs. S. M. Bemiss, M.D., and P. E. Chaillé, New Orleans, La.

*The post mortem examination was made on July 1st, about fifteen hours after death and was limited to the encephalon. The corpse had laid on an inclined plane, with the head elevated. The reputed husband demanded the body and with his friends solicited it for burial before the examination was terminated, which was, therefore, completed with unscientific dispatch. However, careful and repeated examinations, during life, gave evidence of no sympathy nor signs to cause suspicion, that any other part than the brain was affected with organic lesions.

The removed calvarium was considerably thickened, but otherwise normal. The membranes beneath were deficient in vascularity, whilst, at the same time, there was marked absence of cerebro-spinal fluid in the cranial cavity. None was visible, until the cord being cut below the med. obl. and the whole encephalon removed, it flowed freely from the spinal cavity.

---

*The clinical, pathological and physiological details of this case have been published in the January and February issues of this Journal,—[Ed.

All the evidences of disease, now to be detailed, were limited exclusively to the left side; the right being found normal in every particular. The dura mater was vascular and thickened over the circle laid bare by the trephine, and a small free opening indicated the puncture made by the surgeon's knife. Over the *inferior* convolutions of the frontal and anterior portion of the middle lobes, the dura mater and arachnoid were thickened and firmly adherent, but the fingers slowly forced between, separated them without laceration. In all other parts and particulars the membranes were normal. The corresponding parts of the cerebrum, beneath the adherent membranes, were found very much indurated; the induration extending from the anterior extremity of the frontal lobe, (involving the third or inferior convolution and beneath the point corresponding to the trephined circle), to about three inches posteriorly and inferiorly across the fissure of Sylvius, some two inches in width and three-quarters in depth. The superior surface of the left hemisphere, manifestly indicated softening within, which, most marked anteriorly, extended backwards into the posterior lobe. So great was the softening in front, that the most anterior portion of the frontal lobe, the part over which the trephine had been applied, consisted of a thin, flaccid, depressed wall, formed solely by the gray cortical layer. This wall, sinking in by its own weight, was thinnest at the exact point which corresponded to the removed carious bone; (bone which it is interesting to recall, was carious externally, but *not* internally.) This wall being incised, laid open a cavity containing a purulent looking liquid and broken down semi-fluid cerebral pulp, which, generally white, had in some parts a dirty, greenish hue. The size of the untouched cavity might be described as about an inch in diameter, but the gentlest manipulation could have rendered it of far greater extent, for the central portions of the whole left hemisphere were softened, only in a variable degree, greatest anteriorly, least posteriorly. Thus fluid, semi-fluid, softest, softer and soft cerebral substance were blended insensibly together from front to rear. This disorganization involved the corpus striatum, optic thalamus, left side of corpora quadrigemina, and passing downwards through the left crus cerebri and pons varolii, it was not until the medulla oblongata was reached that healthy nerve tissue was found. The left corpus striatum was, on its surface, discolored a dark green and its substance was very much softened. The only portion of the soft hemisphere which retained its normal consistency and appearance was so much of the cortical layer as was not involved in the induration described. This induration, affecting the convolutions separately, gave, therefore, to the finger a nodular, tubercular sensation. There was no evidence whatever of miliary or of cheesey tubercles. When a section of an indurated convolution was made, the central cut surface had a white, lardaceous appearance, but this indurated substance did not respond to the test *for amyloid degeneration. No obstruction nor disease of the cerebral arteries was found.*

Remarks. The description above given indicates clearly that there existed abundant cause for the aphasia. All agree that the faculty or combination of faculties which legislate over speech are localized in the front lobes, and whilst well authenticated facts forbid the absolute assertion, that it is always limited to a particular lobe, or to a particular convolution of either lobe, it is none the less true that in not less than three-fourths of the cases, trustworthily reported, aphasia has been found associated with right hemiplegia and disease of the posterior part of the third left frontal convolution. This same convolution is described by some anatomists as the "inferior left frontal," being located on the inferior portion of the frontal lobe and the third in number, counting from the superior surface downwards. It extends backwards to the island of Reil and the fissure of Sylvius. It was this portion of the brain which in this case was indurated, but, as already stated, all of the adjacent parts which were not indurated were softened and disorganized. Therefore, the extensive anatomical lesions in this brain would only tend to confirm the statistics which amply prove that aphasia is generally associated with right hemiplegia and disease of the left hemisphere.

This case has given rise to much conjecture and discussion. Here, as unfortunately in so many medical investigations, we are prevented by the inability of the patient, the ignorance of her friends, and the prejudice against post mortem examinations, from obtaining information which might enable us to arrive at accurate conclusions as to the cause, nature and extent of the disease. Nevertheless, it may not be altogether profitless to review two questions connected with this case in their pathological and physiological bearings. These are: 1st. What was the cause and nature of this disease and the connection between the internal cerebral ramollissement and the external carious bone? And 2d. Why were the cardiac pulsations temporarily and the respiratory pulsation of the brain permanently absent?

As to the causes, the history of the case intimates (rather than indicates) only one: a severe blow on some undetermined part of the head, inflicted in 1863 or subsequently. The condition associated with the history of the patient also intimated, rather than indicated, a second cause: syphilis. A mercurial course had, at some time, been administered, and, in addition, slight nodosities and an old ulcer existed on the tibia, but careful examination showed that there was not another single indication pointing to syphilis, and all of those associating with her denied positively that she had ever had such a disease. Excluding these two causes would leave us in that hopeless conjecture which is not unusual in our searches for the final causes of morbid processes.

Accepting either or both of the causes mentioned, we encounter difficulties almost insurmountable. Can it be granted that a blow inflicted in 1863 caused a cerebritis which gave rise to no symptoms until three years after (1866) and terminated fatally in 1868? Can it be granted that a syphilitic disease would cause disorganization of the brain, and over that part of the brain most diseased, caries of the bone *externally* but not internally? The pathological anatomy of the parts indicated that the cerebral disease was far more severe, was chronic, and probably anterior to the osseous disease. If then the former was syphilitic, anterior to and the cause of the latter, surely we would have found the internal table of the bone more diseased than the external. On the contrary, it was perfectly healthy. But it is true that syphilis affects both the nervous and osseous tissues, and, therefore, may have caused both the internal and external lesions in this case independently of each other. And yet the chances would seem to be infinite, that the two lesions associated locally so closely, must have depended the one upon the other if of syphilitic origin. If it were possible to admit that the blow caused the lesions, the explanation would be far easier. Naturally the bone would be diseased, if at all, at the point contused, whilst the transmitted shock would develop cerebral inflammation resulting in induration and softening, without affecting the internal table of the bony inclosure. Bearing on this point, it is of interest to determine whether the lesions indicated an ordinary or a specific (syphilitic) inflammation. Our own observation and readings would indicate that the coëxistence of induration and softening in the same brain are very unusual. Pathologists describe both as processes of chronic cerebritis, the softening being a subsequent and more advanced stage, caused either by suppurative inflammation or by a granular, fatty degeneration of the parts previously indurated by the exudation of plastic lymph. But their reports of cases show, with rare exceptions, the softening or the induration existing separately. Some of the most recent and highly prized authorities describe under cerebritis, or encephalitis, softening only, without allusion to induration as one of its phenomena. Of the many authors consulted on this point, by one only has been found described the pathological lesions of this case. Lanceraux' "Traité de la Syphilis," (1867,) a work so highly prized that the New Sydenham Society, London, now has it in course of translation and publication, is the only work which distinctly describes partial adhesions of the membranes, indurations and gummy tumors of the cerebral periphery, and softening, as coëxisting lesions, frequently associated in "syphilitic encephalitis." But it should be borne in mind that the various visceral lesions called syphilitic by some, are as yet neither well defined, nor universally accepted.

It has been observed, that in this case the bones of the skull were never much thicker than usual, which is here repeated to associate it with the interesting observation of Paget: "In the skull, if in any organ, we might speak of two forms of hypertrophy, eccentric and concentric. When the cranial contents are enlarged, the skull is hypertrophied, with coaresponding augmentation of its ared; and when the cranial contents are diminished, the skull (at least in many cases) is also hypertrophied, but with concentric growth and diminution of its capacity."

Attention is also recalled to the fact, that after expoure of the dura mater, the respiratory pulsation of the brain was at no time appreciable by touch or vision; and that the cardiac pulsation of the brain, very evident to the eye and finger, during most of the time from the application of the trephine until death, was, nevertheless, altogether unappreciable immediately after the operation, as also on a subsequent occasion. When the dura mater was first uncovered, the finger's palp was first lightly applied directly to it; it was then passed with some force downwards toward the orbit, until a hard substance was felt and pronounced not healthy brain substance, but either a tumor or altered cerebrum; and, thirdly, less pressure was used and the finger partly withdrawn, until it rested, as was then supposed, in the cerebro-spinal fluid, but which may have been on the cerebral cavity found in the brain. In neither of these three positions could the least cerebral movement be felt.

Prefaced by these facts, we arrive at the consideration of the second question, viz: Why, in this case, were the cardiac pulsations temporarily and the respiratory pulsations of the brain permanently inappreciable? The former depends on the augmented quantity and impulse of blood sent to the brain by the ventricular contractions, and the latter by the still greater quantity of blood accumulated in the brain by the influence of every expiration. In this case, the cardiac pulsations must have been temporarily suspended in consequence of temporary causes enfeebling the heart's action, which added to the diminished vascularity of the disorganized brain, rendered these pulsations too weak to be appreciated by the senses The same causes, diminished heart's force, and diminished cerebral vascularity must have existed permanently to such extent as to render the influence of expiration on the cerebral circulation too slight to be felt or seen. No other explanation seems possible, and yet is it satisfactory? If the cardiac pulsations be at all apparent, ought not the respiratory pulsation, for greater reasons, to be still more evident? A full consideration of the cerebral circulation has not given a satisfactory response, but, to aid the speculations of those readers who may be interested in this question, it was decided to precede this post mortem report, by some remarks on the physiology of the cerebral circulation, as given in the February issue of this Journal.

ADDRESS BEFORE THE "BOYLE COUNTY MEDICAL SOCIETY OF THE STATE OF KENTUCKY," at its Third Anniversary Meeting, held at Danville, Tuesday, January 5th, 1869

[Published by special request of the Society.]

Gentlemen of the Boyle County Medical Society: We meet to-night, on this, the third anniversary of our Society's existence. Three years ago, our association was organized; since then we have met nearly an hundred times, and as often engaged in the discussion of questions pertaining to our profession. Fortnightly, for three years, have we continued to assemble, despite all hindrances, and now, on this triennial anniversary occasion, and especially at this season, so suggestive of reflection—when the old year has died out, and we stand on the threshold of the new one, with its vista of fresh hopes and fair budding promises opening out before us—we may naturally ask, *cui bono*, what profiteth it? Have we, by our organization, advantaged ourselves beyond what would have been were we unorganized? What is our present status compared with our past, and what are our prospects for the future?

These natural questions, so pertinent to the time and the occasion, we stand here to-night, to endeavor to answer.

Sometime since, in conversing with an old friend, a retired member of the profession, living adjacent to a town not a hundred miles from here, we asked him; what tidings of the sons of Æsculapius of your place, and, tell me, especially, whether they have yet organized a society? He replied, "The sons of Æsculapius, as you are pleased to call them, but rather sons of Ishmael, one from my stand-point of vision, would call them, have not, and I assert, never will organize a society." I asked him, why. He replied, that there were so many varying interests and so much discord among the doctors, that, to a looker on, it seemed impossible to ever sufficiently harmonize them to organize a society, founded on mutua concessions, though the object might be for a common benefit.

Upon my asking him to be more explicit, and give me some idea of the state of things, individually, he proceeded in the following strain: "We have some eight or ten doctors in our midst, a sufficient number it is true, to form a society, but, when I tell you, that instead of seeming to be a band of brethren, engaged in a common cause, they seem to feel that they are a band of Ishmaelites, common enemies, every man's hand naturally raised against his neighbor's, you will at once see the foundation upon which I rest my opinion." But, said I, perhaps you judge them too severely, you know that we are all naturally rivals, that most of us are dependent upon our profession for a support, and that what has been called the first law of our nature—*self-preservation*, leads every man to prefer himself to his neighbor. Tell me, said I, what are the rules governing them in their intercourse with one another, upon what grounds do they rely for advancing themselves, or to get practice. Though a rivalry must exist, yet there is such a thing as an honorable, indeed a *generous* rivalry." He then continued: "I believe I am correct when I say, that no three of the doctors speak. Let a new member of the faculty come to town to settle, and they instantly view him as an interloper, trespassing on their own rightful domains, and treat him accordingly. Wo be unto any of their number who may commit a mistake, or have any evil to befall him in his practice, for he at once becomes common prey for the balance, who look upon the weakness of a rival as so much strength lent to themselves. As to their code or rules governing them in advancing themselves—the prime one seems to be the old primitive one of 'every man for himself and the devil take the hindmost.' Another cardinal one, I think, is—'get practice, honestly if you can, but anyhow, get practice.' The means adopted to get practice are multitudinous and the perseverance with which they are followed and the astuteness with which they are applied by some, would do honor to any cross-roads' politician. Marriage, the church, masonry, odd-fellowship, teetotalism, democracy, radicalism, the kuklux klan and the loyal league, are all impressed for aid, and the way in which court days and Saturday evenings are spent in the shaking of hands and *palaver*, a spectator would think the next week an important election was to come off, and the doctor was the candidate for office. Indeed he would sometimes think the vote was surely to take place on Monday, judging from certain scenes on certain church steps on Sundays. To sum up the matter," said he, "though I blush to tell it, I have heard a doctor, without circumlocution and with unmantled cheek, ask a citizen direct for his patronage."

These, and some other things, he said of the art of acquiring practice adopted by the physicians of his locality, which I thought would have formed a worthy appendix to the celebrated letter of Mead* to Dr. Timothy Van

---

* The letter, by the way, was not really written by Mead, but by an enemy of his who fathered it on him.

Bustle on the same subject. Though my friend is rather hypercritical, and withal naturally something of a cynic, and therefore probably drew the scene with rather too heavy a hand, yet we can all recognize some lines which, alas! are but too commonly visible, in any but well-organized communities.

Though in localities in which no organization of the medical body exists, the large number of medical men may act in the true spirit of the profession, and while admitting that if there was no written code, that yet the true physician would carry out its spirit, just as the true gentleman would always be found acting in accordance with the spirit of the civil law, if even it was not the law of the land, yet, just as the necessities of society at large demand organic laws, so, on precisely the same principle, is organization and a written code demanded by every profession. With the clergy, as with the military, it is indeed the fundamental rule of existence.

The truth is, that owing to human depravity, we are all naturally a little mean, and are instinctively predisposed to be a little jealous each of the other. This is, when we analyze it, but an extension of the natural law of *self-preservation* beyond proper limits. Now, I think I may truthfully say, that there is no more effectual way of repressing this evil phase of our nature, in its multifarious disgusting forms, as we see it cropping out within the folds of our profession, than by the accepted public acknowledgment on the part of the better portion of our profession of a written code. Let the public at large once be fully cognizant of our standard, and half the incentives to self-abasement have been taken away; for they, the audience before whom we play our respective parts, can at once measure each of us by our own rules, and the most respectable part of society learns soon to look with disgust upon the tricks of the tradesman in the professional man. Sir Benjamin Brodie once said that medicine is a most noble profession, but a miserable trade. Fully imbue society with this idea, and any over-pushing, grasping desire for the world's patronage, at the expense of honorable independence and the nobler feelings, or at the sacrifice of the rights of others, and the violator will, by the public as by ourselves, be viewed with profound scorn.

The foundation of all pure ethical precepts is in the golden rule "Do unto others as you would have them do unto you," and its spirit has ever been breathed into all the established rules for professional intercourse with which we are acquainted. It is infused into the grand old Hippocratic oath of fifty ages agone. It permeates the noble precepts of that prince of surgeons of five hundred years ago, Grey of Chauliac, who summed up the character of the true surgeon by saying that "He should be courteous and condescending, bold in security, cautious in time of danger, avoiding impracticabilities, compassionate to the infirm, benevolent to his associates, circumspect in prognostication, chaste, sober, pious and merciful, not greedy of gain, no extortioner, but looking for his fee in moderation, according to the extent of his services, the ability of his patient, the result of his treatment, and a proper sense of his own dignity." And now, in our own Code of Ethics, as written by the ever-to-be-honored Percival, and adopted by the American Medical Association, we have as perfect a system of rules for our government, founded on as pure a system of morality as the most rigid moralist could ever wish for — a code which, from its essential nature, must always purify and ennoble those living in accordance with its precepts.

How men of our profession, of good sense and good intentions, can ever live and practice their vocation in the same community without being on good terms with each other, is not easily explicable; for there is certainly no other profession the inherent nature of the practice of which so inevitably and so repeatedly demands coöperation, and mutual kindly services. As has been said by one of eminence in our profession: "If society does treat the medical man harshly and unkindly, is it any worse than medical men treat each other? Many of the worst things ever said of a physician, originally came from another physician's tongue; society is often merely the whispering gallery, which echoes back these utterances. Were we more charitable toward each other, we would silence half the reproaches which are brought upon the profession."* It would always be well for that man who should be ready to rejoice at the mishaps of his neighbor, and dishonorably profit by his misfortunes, to reflect that, being human, we are all thereby fallible, and that the day may not be far distant when he himself may stand in sore need of, and most wistfully crave, all human sympathy; and, furthermore, that he who does injustice to one of his peers, directly wounds his profession, and, reflectively, himself.

How different was the noble conduct of Dr. Mead! He and Dr. Friend were at the head of the profession in London, and were rivals in practice, as well as opposed to each other in politics—Mead being a Whig, and possessing great influence with the heads of the party then in power, while the latter was a Tory, and member of Parliament for Lancaster. Dr. Friend, being suspected of some connection with the Atterbury plot, was arrested and committed to the Tower, where he was confined for nearly a half year. Mead was about this time called to attend Sir Robert Walpole, and during his professional attendance, pleaded so eloquently with the Prime Minister as to effect Dr. Friend's discharge on bail, he himself becoming one of his sureties. Not only this, but he took Friend aside, after his release, and presented him with a purse containing 2000 guineas, the sum of all the fees he had received from the patients of his Jacobite rival during his imprisonment, enforcing its acceptance by saying: "I cannot profit by the misfortunes of a rival." What a worthy example of magnanimity was the course of Dr. Paul F. Eve, who, appointed Professor of Surgery in the University of Louisville on Dr. Gross' leaving the chair to occupy a similar position in New York, when the latter returned to Louisville, after a year or two, at once resigned, telling the trustees to reäppoint Dr. Gross—that he was the ablest man for the position to be found in the West, and that the honor of the school and the good of the profession demanded his reāppointment!

---

* Dr. Theophilus Parvin.

The practice of our profession in the proper spirit, tends, of its very self, to ennoble us, and this tribute was paid to medicine more than a thousand years ago, by no less a personage than Cicero, when he said, "*Homines ad Deos nulla re proprius accedunt, quam salutem hominibus dando.*"

But, as the organization of individuals into communities is greatly auxiliary to individual effort, whether it be for the furtherance of material interests, or the practice of the moral virtues, so is our profession benefited by the formation of Societies. Certainly one of the most powerful levers impelling the advance of medical science during the past half century, has been the establishment of the numerous medical Societies which during that time have grown up in the capital towns of Europe.

Before these, every alleged discovery with any pretensions to importance, is brought up, and undergoes the ordeal of scientific discussion by the ablest minds of our profession. Before these, a thousand pretentious theories which would have lived sometime in the world, have promptly received their quietus; and it has been, on the other hand, through its ventilation here, that many an opinion or method which would otherwise have been very slow of development, has at once obtained its proper standing with the profession. The great medical Societies of the world are the winnowing machines of the profession, serving the most useful purpose of sifting the good from the bad, the true from the false. Let the Academy of Medicine, or the Imperial Academy of Surgery, of Paris, alone be blotted out to-day, and the loss would soon be sensibly felt by the profession throughout the world.

Is there a member of the Boyle County Medical Society present to-night, but will agree with me in affirming that, as an individual practitioner, he has been instructed and elevated morally as well as mentally from our united association? And, furthermore, I believe I speak the truth when I say, that as the result of the Society's organization and operations, our profession as a body, and as a consequence, we, as individual practitioners, have been elevated an hundred per cent. in the eyes of this community in whose midst we belong.

These may be mentioned, not in the spirit of egotism, but for self-encouragement, and to demonstrate the claim that our organization has not been in vain--the effects of our Society abroad. I believe that the profession throughout the State, who are informed as to the history of the reörganization of the Kentucky State Medical Society, with one accord give the credit of its revival to us, and certainly that the plan of its resurrection originated here. I am aware of three Societies within the State, which, encouraged by our example, have been organized, adopting in the main, the constitution, by-laws, and form of business governing this body, and I have reason to believe that more than one other association antedating us in age, has been awakened from its state of suspended animation and had new vitality infused into it, by the example of our prosperity.

What, gentlemen, are our prospects for the future? Has our society reached its acmê of efficiency, and is it unreasonable to expect the fruits of the year just before us to excel the products of the one just ended?

While acknowledging that our *organization*, simple as it is, is yet remarkably well adapted for effecting its object, and while I think I can say without reflecting egotism, that we have done well in the past, yet truth demands that I should say that there yet remains a wide margin for improvement.

Wherein we are yet lacking, and the direction in which I think improvement can be effected, it becomes my duty to endeavor to point out.

It has been justly said by an eminent observer in our profession, "A very large class enter the learned professions with no higher motives than such as characterize commercial enterprises, pursuing them as a business, and more anxious to erect monuments like that of Nebuchadnezzar in the plain of Dura, than such as fill the niches of fame."*

> **" Make sordid wealth the object and sole end**
> **Of their industrious aims."**

But, gentlemen, though we know that while we have our own, with perhaps many other hungry mouths to fill, we must ever instinctively feel, that to derive an income from our professional labors must be one of our first objects—an object the worthiness of which we have sanctioned by the inspired authority, which tells us that "he who provideth not for his household is worse than an infidel"—yet we should never forget that we have it from the same authority, that "man shall not live by bread alone."

---

* **Dr. D. Hayes Agnew.**

Dr. George B. Wood once declared that "He who enters the medical profession with a mercenary spirit, will almost necessarily come short of its highest requirements. Aiming at the appearance, rather than the reality of skill, he will think more of the impression he may make on others, than of a proper understanding and treatment of the disease. When nothing is to be gained but the consciousness of duty fulfilled, he will be little apt to spend time and labor which might yield him more if applied elsewhere, or at least would be abstracted from his pleasures. For the frequent self-denial, the steady devotion of thought and energy, the unwavering guard over his precious charge, as well when unseen as when seen of men, which characterize the right spirited practitioner, he has no sufficient inducement. He will be, almost necessarily, more or less superficial. He never can be the true model physician. Just in proportion as medicine is cultivated in the mercenary, or in the pure professional spirit, will be its decay or advancement in efficiency, zeal, dignity and acceptance with God and man. * * Get the true professional spirit, and all that is needful or desirable will be added unto it."

The English Hippocrates, Sydenham, used to say: "I have thought it a greater happiness to discover a certain method of curing the slightest disease, than to accumulate the largest fortune." And the illustrious Dr. Fothergill once said: "My only wish was to do what little business might fall to my share as well as possible, and to banish all thoughts of practicing physic as a money-getting trade, with the same solicitude as I would the suggestions of vice or intemperance. * * * I endeavor to follow my business because it is my duty, rather than my interest; *the last is inseparable from a just discharge of duty.*"

Lord Bacon has said "that every man is a debtor to his profession, from the which, as men do of course seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto." Our code makes the same acknowledgement in the paragraph which declares that "Every individual, on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to the extent of his best abilities to maintain its dignity and honor, to exalt its standing, and to extend the bounds of its usefulness;" and further on enjoins that he "should, by unwearied diligence, resort to every honorable means of enriching the science."

Now, gentlemen, let us ask ourselves the question direct, and let each answer it honestly for himself, whether during the year just closed, he thinks he has been perfectly imbued with the "pure professional spirit," or whether he does not think we all yet have rather too much of the "mercenary sort." Have we always attended our society meetings, when it was possible? Have we always prepared ourselves as thoroughly as we could for our debates? Have we always done what we could in the way of prepared papers, and written records of cases to be read before our society? Have we, in every instance possible, demanded and held a *post mortem*, when we had a fatal case? Have we taken advantage of the opportunities we have had of cultivating anatomical science, the very groundwork of our profession? Have we all kept case books, and carefully recorded the progress and results of each case in our practice? Have we kept as many journals on our tables as we could afford to take and had time to read, and purchased every new work, the perusal of which was necessary to keep us abreast in the present rapid march of our profession? Have we provided ourselves with all instruments which the exigencies of our profession and the urgency of certain cases which are liable to fall into our hands at any day, will not give us time to send abroad for, when the occasion arises for their use, and the want of which, under certain circumstances, might make us morally criminal, on the death of a fellow-being? And have we always kept ourselves so pure and unspotted from the world of quackery that, by a refusal of private social recognition of its practitioners, we take away from the public all occasion of confounding them with us? To make application of an expression of St. Paul, "Have we all done what we could to *magnify* our profession?"

But methinks I hear some one present say, We have no time for most of these things; the toils of our practice, and the domestic duties—with those of us having families—so engross our time as to leave us insufficient leisure for the cultivation of medicine as a science. Besides, some of us are growing old, and we must leave everything of that sort to the younger generation, following after.

But I would ask any so objecting, to think for a few moments, and tell me, if he can, of any great work which we acknowledge as of much authority in our profession, which has not been prepared amid just such, or more onerous duties than any by which the busiest of us is now harassed. Let him reflect that some of the most valuable of all the works for which to-day our profession is indebted to Sir Astley Cooper, were composed in the midst of one of the largest private practices of any man who ever lived, and at the time, too, when he was an hospital surgeon, and daily lecturer in a medical school. Let him look at those eighteen volumes of Gerard Van Swieten's "Commentaries on Boerhaave," the great text-book of the medical world a century ago, and recollect that they were written by the court physician of Joseph II, in the midst of one of the heaviest and most responsible of private practices, and that he still found time to originate a medical school, give clinical lectures, create a botanical garden, and to exert his influence sufficiently to found a university. Let him read the lives of Boerhaave and Haller and Hoffman, the bare titles of the latter of whose works fill thirty-eight quarto pages, and see if they had learned leisure in which to do nothing else than write. Does not every one know that Hippocrates, the father of medicine, wrote those immortal records which all acknowledge as the foundation of our science while engaged in what must have been almost constant practical professional engagements. Or let him come down to the present year and hour, and know that the living, shining lights of our own day and generation, are also the busiest privately occupied. Let him know that Sir Thomas Watson, and George B. Wood, and Austin Flint, and Sir William Ferguson, and Erichsen, and Gross, and Sir James Y. Simpson, and Hodge, and Meigs, each wrote the works which we, and generations after us shall be indebted to them for, while busier than the busiest of us in this presence. No, gentlemen, when we recollect that Dr. John Mason Good found time to translate Lucretius' "De Natura Rerum," with his book in hand as he drove or walked his daily rounds, engaged in one of the largest practices in London; and when we read in the preface to Dr. Willis' Biography of Harvey, together with a complete translation of his works from the Latin, what he says in speaking of the biographical part: "This portion of my work I have only achieved with an effort, and at something like disadvantage. Incessantly engaged by night and by day in the laborious and responsible duties of a country practice, enjoying nothing of learned leisure, but snatching from the hours that should rightfully be given to rest, the time that was necessary to composition, remote, too, from means of information which I must nevertheless send for and consult"—recalling these, and an hundred similar examples if we might, for one, I think that there is not one of us but should feel humiliated when reflecting on our wasted time, time which we have let slip from us, never, nevermore to be repossessed.

But, I imagine I again hear it objected, that we are but unpretentious country doctors, not aspiring to lead the profession, and even if we were all aflame with ambitious hopes to do so, that our narrow sphere would make their realization an impossibility, that the village doctor, must from the very nature of things, ever be the passive follower of the hospital physician of the city.

But, I would answer, gentlemen, that this is not the point. I am not speaking of ambition, though if we each had a little more of it in us, it would probably be better for ourselves and our patients; the question is one regarding the fulfillment of that injunction of that code which says that we are morally bound to exalt the standing of our profession, and by "unwearied diligence, resort to every honorable means of enriching the science." Because the hospital presents a wider and more easily cultivated field than ours, does it follow that ours must be totally barren? No, the material in each case is just the same, poor suffering humanity, and while the concentration of large numbers of sick within a small space, and the regulations of hospitals, are such that the observer can study disease more readily, have his directions carried out more effectually, and record and tabulate the results more easily, yet the antecedents, the surroundings, and the very concentration of patients within eleemosynary institutions, are so different from those of the patients of private life, that the uncorrected conclusions of experience drawn from the former source alone, are not perfectly applicable in every respect to those whom we attend.

I cannot recollect any evidence that either Hippocrates or Sydenham, was ever connected with a hospital, and it would be well for those who would despise our narrow sphere, to recall the fact, that the greatest boon which our profession has yet conferred upon humanity (vaccination), came at the hands of a modest country physician, who made his daily rounds just as we are doing; and let him also know, that the physician of America now, receiving the most honors at home and in Europe, is doing so because of an operation conceived, executed and perfected, while laboring in precisely the same character of field as our own. Why, gentlemen, an operation which has made the name of its originator famous throughout the world, and will send it down honored to coming generations, an operation by which thousands of lovely women have been, and many more shall be rescued from otherwise inevitable death, was first planned and performed right here in this our own little field.

Let us all use the opportunities at command, to the extent of our abilities, and although our Society may never be honored by one to whom the world shall owe so much as it does to a Jenner, a Sims, or a McDowell, yet of one thing we may feel assured, that we will all become better practitioners, and our patients, to whom we shall be called to administer, be proportionally benefitted.

The plain truth is, that those who intrust themselves to our care, have the right to require of us a knowledge of our profession fully up to the advances of the day, and for the lack of the possession of such knowledge, involving human life and health as it does, we stand responsible before God and in the presence of the law. Ours is not an exact science, but is making regular and rapid progress toward a position in which it may be ranked with the fixed sciences. While this rapid march continues, to cease to advance is to retrograde, and the day the practitioner of medicine ceases to be a student, that day should see him, if a conscientious man, ready to retire from the ranks of the profession. Unremitting study and labor will ever constitute our only reliable motive power, so long as we continue members of that great army, in the interests ofmedical science, warring with disease.

In the introduction to one of his anatomico-physiological treatises, Galen calls his work "A Hymn to the Deity," declaring that, to his mind, such an offering was more acceptable in the eyes of the gods, than the sacrifices of whole hecatombs of oxen, or incense from the most costly perfumes. Galen was but a pagan, yet the spirit of his language, was worthy of these most Christian times, since every effort properly directed toward the improvement of medicine, tends to alleviate the sufferings of our race. I believe the true physician can, of all men, most truly say—"*laborare est orare.*"

If we believe in the sentiment, there is one resolve which I think we should make in common here to-night, that we should each of us keep a *case book* and in it faithfully record the phenomena, treatment and results of every case of any importance falling to our lot during the present year. The keeping of an intelligible and conscientious record, must necessarily improve every individual keeping it, but let a dozen men in country practice each keep one and the combined experience is about equivalent to a large ward in a hospital. Should the members of every country district in the State, keep accurate records, for the next three years, there would be data of the most valuable character, and such as our profession stands greatly in need of, data from which the statistics of modern country practice separate from hospital practice could reliably be made out. Let us keep accurate records of our practice, and we will gradually lose a phase in our debates which has been entirely too familiar with us, and one which does not look well in a scientific body, when seen too often. I allude to the common expression of opinion, without a reason for the faith in us, and which is a frequent source of controversy without practical benefit; *e. g.*—Dr. A. says that he thinks a certain disease less common than formerly, while Dr. B. arises and declares that he thinks it more common, to be followed by Dr. C., who probably thinks it about as common as it has always been. Or, let the question be one regarding the presence of certain phenomena in disease, or the results of the administration of a certain remedy, and it is the same thing. But if we could all draw upon the *written records* of our experience, instead of our unconfirmed recollections, which are too often but "vain imaginings," our opinions would be more nearly demonstrable. "*Litera scripta manet.*" We should not forget that simple opinions are not experience, let them be asserted ever so boldly, but that, as Liston has said, "The greatest number of well-assorted facts, on a particular subject, constitutes experience, whether these facts have been culled in five years or fifty."

Next in importance with us to the subject just under discussion is, I think, *the making of post-mortems and anatomical dissections.*

The first has always been deemed necessary to the intelligent practice of our profession, and absolutely essential to the advancement of medicine toward a perfect science. Without it, nearly one-half the fruits of what we are accustomed to call experience is lost; for otherwise we have no means of confirming the correctness, or correcting the errors of judgment, regarding pathological conditions supposed to exist during life, and toward which our therapeutics have been directed. It is true, that I have sometimes heard it objected, that practitioners in the country are so unaccustomed to examining the dead, that when they ever do so, their opinions are worth but little from their inability to clearly discern and distinguish normal from abnormal appearances. But this is the most futile of objections, being, indeed, one of the strongest arguments in behalf of their being more frequently held. It has been remarked that one of the most correct indices of the true standing of our profession in any locality is the frequency of *post-mortems.*

As to the latter—*practical anatomy*—I don't know that I can adduce any arguments, or the opinions of any, entitled to more authority concerning the necessity of its cultivation by us, than have been adduced by Sir Astley Cooper and Sir Benjamin Brodie. The former has said: "Let it always be remembered, that operations cannot be *safely* undertaken by any man, without his possessing a thorough knowledge of anatomy. This is the real groundwork of all surgical science. It has ever been found that half anatomists are bungling practitioners; ignorance here, as it always does, gives confidence without power. * * * With us the march of improvement has been most rapid; and it has principally arisen from the assiduity with which the modern surgeons have pursued their dissecting-room avocations." The latter, when once conversing in private with a young American who had just taken his degree in medicine, said: "If you wish, my young friend, to give breadth to your medical conception and confidence to your hand, if you wish, indeed, to make yourself a great surgeon, let me say to you, as I would to all with whom I have influence, never for a moment cease the cultivation of anatomical science." Now it will not do to excuse ourselves by saying that, being country doctors, we make no special pretensions to surgery, and that the remarks quoted were intended to apply alone to those practicing surgery purely, and that when a surgical operation is necessary, they are the ones to whom we send our patients for its performance. The truth is that the advice is in a great measure as applicable to the pure physician as to the surgeon; and, furthermore, the accomplishments demanded at the hands of practitioners in the country are really much greater than those of the city practitioner, who can devote himself to medicine alone, or to surgery exclusively. For we, from the nature of our situation, must be physicians, surgeons and obstetricians—all. I admit that it is true that in probably the majority of our cases we can send our patients with surgical affections abroad for operations, but we must recollect, gentlemen, that in many instances we cannot. Every country doctor must be his own bleeder, cupper and leecher; every country doctor is in any hour liable to be called upon to reduce a dislocation, or amputate a mangled member, or set a fracture, or trephine, or operate for inguinal or femoral hernia, or perform tracheotomy, or extract a bullet, or cut down upon and take up an artery—operations sometimes requiring no little degree of anatomical knowledge, and which make the operator sigh for an opportunity of resorting to the cadaver to revive his recollections. I am ready to admit that the difficulties and dangers of dissection are not small, to say nothing of its disagreeableness, and that we are placed in the very unpleasant and anomalous condition of being compelled to be law-breakers to enable ourselves to obey the law; but I think that it has already been satisfactorily demonstrated that the good sense of this community, and its respect for our profession, are such that we have no just grounds for fearing outside interference with dissections, when made with discretion, as, indeed, they always should be. "We must dissect the dead, or mangle the living."

What shall I say of the hated monster Quackery which like a hideous hydra-headed shadow, ever stalks abroad accompanying our profession? As the louse, the flea, and tick are the constant companions of the canine tribe, so it would seem the body-politic is destined always to be preyed upon by the quack. Though the crop of medicasters, charlatans, quacksalvers, nostrum-mountebanks, liniment-rubbers, wind-pumpers, electric-humbuggers, *et id omne genus*, has been as plentiful as usual during the past three years, yet I don't think they have flourished in this vicinity, as much as was their wont in former days.

One prime source of the evil rests in the bosom of our own profession, for as has been said by another: "The quackery which is practised among medical men is a much greater evil than that which is abroad in the community. When the rules of an honorable professional intercourse shall come to be understood by the public, as well also as many of the tricks and manœuvres which are employed by those physicians who, pursuing medicine as a *trade* instead of a profession, study the science of patient-getting, to the neglect of the science of patient-curing, one of the great sources of the success of quackery will be removed."* Let us see to it that our own escutcheon shall be kept clean, if we wish to avoid all danger of its being confounded with the dirty banner of the enemy. As I once heard a very eloquent divine say, in a revival sermon, from the pulpit: "If we but had a revival within the fold of the church, a great and blessed revival indeed would it be." So might we paraphrase him and declare that if the profession proper, were perfectly purged of quackery, what a riddance there must be. In proportion to the high and trusted stand, which our profession takes in a community as a scientific and ethical body, is the difficulty of quackery's obtaining a foothold, but when torn by dissensions among ourselves, chaos prepares a rich field for its prolific growth.

---

* Dr. Worthington Hooker.

Our code declares it to be our duty as "physicians who are frequent witnesses of the enormities committed by quackery and the injury to health, and even destruction of life, caused by the use of quack medicines, to enlighten the public on these subjects, and to expose the injuries sustained by the unwary from the devices and pretensions of artful empirics and impostors." To this end, I think that it is the duty of each of us, on every proper occasion, to endeavor to reason and explain away the prejudices and misconceptions of the more intelligent portion of society, for it is this part after all which furnishes the main pillar of its support. I think that not infrequently the mistake is made of treating the subject with some simple ejaculation of contempt, which proves ineffectual, when if we took the trouble of reasoning a little with those who are intelligent and honest, though misinformed, our efforts to eradicate error would more frequently prove successful. As showing the standard by which we would have our profession judged, and thus combat the wrong by showing the right, I think that a very great deal of good has been accomplished for this community, by our recent publication* of the Code of Ethics. I have now this suggestion to make to the Society, viz: That for the purpose of impressing the public more thoroughly on this point, we raise a fund for the purpose of inserting in the columns of our village paper for the ensuing year sections 3 and 4 of art. 1 chap. 2 of the code, which reads: "§ 3. It is derogatory to the dignity of the profession, to resort to public advertisements or private cards or handbills, inviting the attention of individuals affected with particular diseases, publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations; to boast of cures and remedies; to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician.

---

* In the village paper.

"§ 4. Equally derogatory to professional character is it for a physician to hold a patent for any surgical instrument, or medicine; or to dispense a secret *nostrum*, whether it be the composition or exclusive property of himself or of others. For if such nostrum be of real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality; and if mystery alone give it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them."

This card, properly quoted, as an abstract from the code of the regular profession, to be inserted immediately above or below such flaming advertisements as we now weekly see, and as are constantly making their appearance throughout the year, I doubt not, would effect good by making the public hesitate and ponder well before resorting to traveling charlatans.

If legislation could be brought properly to bear upon the evil, much would be done toward its repression. With this object in view, one of our legislators has promised, during the coming session, to introduce a bill into the Legislature similar to the medical act recently passed in the neighboring State of Ohio.

In conclusion, gentlemen, we ought always to remember that "of unity cometh strength;" and that, as whatever of individual honors come to us are reflected upon our Society, so as individual members composing the Society, whatever of honors or glory cometh to her is reflected back upon us. Let us never forget that the preamble of our constitution declares a prime object of this organization to be "the cultivation of amity among us;" recalling which, let us foster toleration, charity, forbearance, the spirit of forgiveness, and all the kindlier feelings, which I think, considering everything, have preeminently characterized our association in the past; and, as greatly promotive of this end, I would suggest that we meet more frequently around the social board.

And now, may I say, in the name of every member here present to-night, that whatever of joy or sorrow the future may bring to us, nerved to a triple resolve by the recollections of the three years just expired, may the coming three always find us true and worthy worshipers at the altar of science, ever lending the best powers of head, heart and hand toward adorning and keeping clean the little niche in the great Temple of Medicine which has fallen to the lot of the Boyle County Medical Society.

John D. Jackson, M.D.

ECLECTIC DEPARTMENT.

"Carpere et Colligere."

Art. 1.—On the Microscope, as an Aid in the Diagnosis and Treatment of Sterility. By J. Marion Sims, M.D., New York. Read at the meeting of the Medical Society of the County of New York, December 7, 1868.

By the kind invitation of your President, I have the honor of appearing before you, and of stating my views on the subject of sterility; a subject always interesting, whether viewed in its bearings upon the happiness of individuals or the prosperity of States. It has engaged the attention of the profession for ages but, till within the last twenty-five or thirty years, little or no progress was made in its treatment.

The first step in the right direction was taken by McIntosh, when he dilated the contracted cervical canal by bougies, and thus allowed the semen to pass to the cavity of the uterus. Sir James Y. Simpson followed out the same idea, when he subsequently incised the cervix to render its canal permanently larger. As the Edinburgh school has, then, established the fact that a dilatation of the cervix, whether by bougies or incision, is sometimes followed by conception, I claim to have established further facts in the same direction, which facts constitute the basis of the present paper "on the microscope in the diagnosis and treatment of the sterile condition." I have been accused of cutting open the cervix uteri recklessly and unnecessarily. True, I have laid down rules for the performance of this operation, under various circumstances; and I know that I have had some earnest and enthusiastic followers. If I have misled any of my brethren, it is my duty to hasten to rectify the error. So far as incision of the cervix uteri for dysmenorrhœa in the abstract is concerned, without reference to the sterile state, I wish it to be understood that I have nothing to recant, nothing to undo. But, so far as this operation may be indicated in cases of sterility, properly speaking, without regard to the relief of physical suffering, I candidly confess that I have a word of advice for my younger brethren; for I am now convinced that I have repeatedly cut open the cervix uteri, for the sterile state, when the operation was both useless and unnecessary; and I am sure that almost every other surgeon, who has performed this operation often, has made the same mistake. How frequently have we all heard it said in consultation, "No operation is needed in this case, because the sound can be easily passed along the cervical canal!" And again, how often have we heard it said—how often have I said it myself—"An operation is necessary in this case, because the canal of the cervix is too small to permit the easy entrance of the semen!" Now, these important questions cannot be determined, with any degree of accuracy, in this hap-hazard manner. For it is not always necessary to incise the cervix uteri, simply because it does not easily admit the passage of an ordinary sound; nor, on the other hand, are we justified in condemning an operation, simply because the sound can be passed easily. In other words, a very small os does not always call for operation, nor does a larger one always forbid it. Do you not think, then, that a great service would be rendered, if we could reduce this question of operation, or no operation, from the broad domain of speculative opinion to the narrow path of absolute scientific certainty? There is nothing easier, for the microscpe accomplishes this in the most perfect manner imaginable. It settles the question of operation, or no operation, in an instant, leaving nothing whatever to be guessed at, and nothing to be desired.

Is it surprising that positive knowledge of this sort should meet with opposition among honest, earnest cultivators of medicine? Not at all. For it is ever so with any great truth. It must first be opposed, then ridiculed, after a while accepted, and then comes the time to prove that it is not new, and that the credit of it belongs to some one else. The truth here announced has had its day of opposition, and it must now soon take its stand as established and acknowledged.

On the subject of the microscopic examination of the utero-vaginal secretions, I have been misrepresented, maligned, and positively abused by a few both abroad and at home; and I have been misunderstood by many who have not taken the trouble to read, to investigate, to think, and to reason for themselves. And, Mr. President, under these circumstances, I cannot 'thank you to much for the high privilege of appearing here to explain and to defend my position, by laying the facts in the case before this learned Society, this great gathering of my countrymen, whose decision, I am sure, will be in accordance with truth and justice.

We may all differ honestly about abstractions, and theories, and mere opinions; but, when it comes to facts and figures, there cannot long be a great difference among men of good common sense, with honesty of purpose in pursuit of truth. I have never yet been afraid of truth, however much it may conflict with prejudices, find it where I may; nor do I ever expect to see the day that I would fear to publish my convictions on any matter of professional importance, be the character of the opposition what it may; and, particularly, when I feel that these convictions are based upon facts that are immutable, and that lead to results of the gravest importance to the honor of medicine, and to the advancement of knowledge. Whatever gives to any department of medicine greater exactitude, helps to raise it to the dignity of a science. And this is what I claim to have done with the microscope in this direction.

The microscope has done, and is doing, a great work in medicine, as well as in the collateral science. But I know of no field in which it will be of more practical use than in the diagnosis and treatment of the sterile state. For, where evrything was a short time ago in doubt and confusion, all is now made clear by this wonderful instrument. Even in this day, there are many very honest cultivators of medical science, who do not believe in the value of the teachings of the microscope.

The great Velpeau died, having no faith whatever in its practical utility. A few years ago, I was one of those benighted scoffers who believed it to be merely a scientific toy, with which to while away leisure hours. Fortunately, my ignorance was dispelled, and I now look upon the microscope as essential to the daily duties of the physician.

About eight years ago, my friend Dr. W. H. Dwinelle, of this city, a very accomplished amateur microscopist, was showing me some organic substances, under the microscope, in which I did not take any great interest. Indeed, I felt positively bored by a pertinacity with which he attempted to enlist me in his favorite study. When, at last, he said, "My dear doctor, I see you are very tired, but here is something that you must look at before you leave." He held the glass up, to show me there was nothing that my eye could detect, and then placed it under the microscope, adjusted the focus, and asked me to look. I am sure I was never more surprised in all my life, than I was then, to see and read the Lord's Prayer. From that moment I was convinced that the instrument exhibited things just as they are. And I have often said, that I supposed this was not the first instance in which the Lord's Prayer was the means of opening a man's eyes to the truth.

With these prefatory remarks, I now beg leave to give you some illustrations of its use in in the treatment of the sterile state.

In the investigation of any case of sterility, there are three questions that must be settled at the outset, if we expect to treat it understandingly:

1. We must be sure that we have semen with spermatozoa.

2. We must ascertain if the spermatozoa enter the utero-cervical canal.

3. We must determine whether the secretions of this canal are favorable or not to the vitality of the spermatozoa.

For, if the semen does not contain spermatozoa, of course the uterine condition does not call for any treatment whatever. But if it does contain spermatozoa, and if they do not enter the cervical canal, then there is the question of operation or not, to permit their entrance.

On the other hand, if we should find spermatozoa in the cervical canal, then, as a rule, no operation will be needed; and if we should find them there in abundance, and all alive, then the case needs no treatment whatever. But, if we should find them there, all, or nearly all, dead, then it is evident that the secretions of the utero-cervical canal poison them, and therefore the physical condition, giving rise to this abnormal secretion, must be searched out and treated.

The present advanced state of physiological knowledge warrants us in saying, that conception is impossible without spermatozoa; and that it is impossible if the spermatozoa cannot pass into the cavity of the uterus; and, to these acknowledged truisms, I must add another, viz: that it is equally impossible, if they die in the cervical canal, or are dead when they reach the uterine cavity. It is, then, self-evident that these three points must be determined—it matters not what other complications may exist. Fortunately, as I have said before, they are all easily and quickly settled by the microscope. Without the microscope, it is impossible to determine either of them. Without the microscope, then, our treatment of the sterile state is simply blind empiricism. With it, our diagnosis becomes absolutely certain, and our treatment, at least, rational. What, then, are the first steps in this investigation? How can we begin? Where shall we begin? Now as it is upon this very point that I have been so stigmatized, I will tell you exactly how I manage this delicate affair.

Given a case of sterility for investigation, the physician examines the state of the uterus and its appendages. His patient may have a frightful dysmenorrhœa, a flexed cervix, a contracted cervical canal, some malposition, a polypus, a fibroid, or something that would possibly prevent the passage of the semen to the cavity of the uterus.

He may feel convinced, in his own mind, that conception cannot take place unless some surgical operation be performed—perhaps incision of the cervix uteri. This operation is usually done to permit the passage of the semen into the uterine cavity. But in this, or in any case, what right have we to say that the semen does not or cannot pass into the cavity of the uterus? We must not take it for granted that it does not, simply because the os seems to be small; for we know that cases are recorded, where conception occurred, when the os barely admitted a small-sized probe; and we know very well that spermatozoa now and then pass along the Fallopian tubes, which ordinarily admit a bristle. If the semen enter the cervical canal, we may lay it down as a rule, that a dilatation of the cervix by incision, or otherwise, is not necessary; but if it do not, it may be necessary. We may perform any rational operation for the relief of suffering, and for the restoration of health; but I insist that we have no right to perform any operation, or to institute any treatment whatever, solely with the view of the cure of the sterile condition, till we have first settled the three propositions, above laid down, touching the presence and viability of the spermatozoa. To find out all at once, and with the least delay and trouble, I usually say to the husband or wife, as it may be, "It is very important, before instituting any treatment, to be sure that the seminal fluid enters the neck of the womb, for without this conception is impossible. We must also ascertain if the uterine secretions kill the semen; if so, a certain treatment will be necessary. If you will, then, send your wife here, or come with her any day, five or six hours after coition, it will be easy to settle these points at once." In nineteen cases out of twenty, the wife presents herself the next day. The speculum is introduced (and when I say the speculum, I always mean the one that bears my name), and some vaginal mucus is removed by the syringe, and placed on an object-glass. Then some cervical mucus is drawn out and placed on an object-glass. These two specimens are then examined under the microscope. If we find spermatozoa, well and good; but if we find none, neither in the vaginal, nor cervical mucus, our fears are at once aroused. What then is to be done? I simply say that I am not quite satisfied with the examination, and would like to see the wife again, at some future time, under the same circumstances. But, suppose we find no spermatozoa on this second examination? Then two questions immediately arise: either, that there are no spermatozoa, or that the semen has all passed off before the case came under observation. Sometimes the semen is all instantly thrown off by the vagina, and then it would not do to pronounce the husband sterile, till we are sure of a specimen of his semen for investigation. If I fail to satisfy myself on this point, I then explain the possibility of the semen all passing off, in the act of rising and dressing, and show the absolute necessity of making the examination half an hour or so after coition, and before the erect posture is assumed. When the subject is presented in this plain, practical manner, and treated seriously, no man or woman of sense could oppose it; and with me, it has never, in a single instance, been objected to. When I am sent for to make the examination, if I find in the vagina a fluid with the characteristic seminal odor, I am satisfied with the microscopic examination. I have never, in but two instances, been compelled to resort to Mr. Curling's plan, of asking the man to squeeze a drop of mucus from the urethra, on to a bit of glass, immediately after sexual intercourse. But as this is sometimes necessary, it is well to remember it.

If we eventually find that the semen contains no spermatozoa, then all uterine treatment is at an end. But if we are at last satisfied that it contains spermatozoa, then we must determine if these enter the cervix uteri, and if so, do they there find a fluid favorable to their existence? And all this can be done only by the microscope.

The question of the entrance of the semen into the cervical canal, and of the effect of its secretion upon the spermatozoa, can be fully aud satisfactorily ascertained only during a very brief period. We are sure to make a mistake if the microscopic examination be made just before the expected return of the menses; and why? Because, there is always a certain amount of fullness of the uterus—of engorgement, so to speak—which precedes the menstrual flow; and the cervical canal may not admit the semen from mere turgescence of its walls. Besides, at this time, its secretions are almost sure to kill the spermatozoa even if they should happen to enter this canal.

Physiologists are generally agreed that conception takes place during the week following menstruation. Avrard says we have fourteen days of active uterine life and fourteen days of uterine hypnotism. He says that conception can occur at any time after menstruation up to the fourteenth day, counting from its commencement. For instance, if menstruation should last for three days, then we should have eleven days for the possibility of conception. But, if menstruation should should last eight or nine or ten days, then we would have respectively but six or five or four days as the time possible for conception. After this time the uterus, according to Avrard, lapses into the hypnotic state, when conception is impossible. While I am disposed to accept Avrard's dictum as the rule, I think I have seen exceptions to it, if we can always depend upon testimony seemingly reliable. Be this as it may, I am sure of this fact: if we wish to determine the effects of the cervical mucus upon the spermatozoa, we must make the experiment during the week that follows menstruation. About the fifth or sixth day after the flow is the best moment; for then the uterus is in the most favorable condition. The cervical mucus, which just before menstruation was perhaps thick and opaque, then becomes clear and translucent. If, by examination made at this particular period, we should find spermatozoa in the cervical mucus, we could safely say that it will not be necessary to incise the neck of the uterus. But if the sperm do not enter the canal, then the probabilities are in favor of the necessity of some surgical interference. The semen may enter the cervix in great abundance, and we may find the spermatozoa all dead, even but a few minutes after coition. Then, as said before, we must find out the source of the poisonous secretion, and remedy it; for a vitiated secretion shows some organic condition requiring a special treatment.

When I wish to examine the action of the cervical mucus upon the spermatozoa, I order sexual intercourse in the morning—the dorsal decubitus to be retained for an hour afterward; and I expect a visit from my patient four or five or six hours after coition. Sometimes we find spermatozoa in great abundance in the cervical canal, and not one living. (I have occasionally examined the mucus six, eight and ten minutes after coition, and found all the spermatozoa dead.) Sometimes we find half of them dead; again, only about a third; again, two-thirds. Sometimes, in one portion of the mucus, every spermatozoon is dead; while in another portion of the sample, with fewer epithelial scales, we may find them alive. Now and then, after treatment for a month or more, I have found the mucus drawn from the lower segment of the cervical canal full of living spermatozoa, and I have supposed that the case was cured; but when I came to examine that drawn from the upper segment of the canal, near the os internum, they were nearly all dead. This was evidently because the mucous membrane lining the lower segment of the cervix, being more easily reached and more thoroughly treated, had assumed a healthier character, and consequently its secretion was restored to a normal condition; while that higher up, and more difficult to reach, had not been so much improved, and hence its secretion was still abnormal—a condition requiring further treatment.

The vaginal mucus, by its natural acidity, kills very quickly every spermatozoon. I do not now remember ever to have found one alive in the vagina, except when the examination was made very soon after coition; when, indeed, the vagina was full of semen but slightly mixed with other secretions. Examined three or four hours after intercourse, the spermatozoa found in that portion of the mucus of the vagina adhering to its walls are always all dead. Indeed, the normal vaginal secretion seems to be a perfect poison for the superabundant spermatozoa.

When, after a month's treatment, I wish to know whether the case is cured or not—in other words, whether all possible recognized barriers to conception are removed —I order sexual intercourse (just after menstruation) at night, and examine the cervical mucus twelve or fourteen hours afterward. If the majority of the spermatozoa be alive and active, I have great hope of conception. Before dismissing a case as cured, I think it necessary to examine the mucus thirty-six hours after coition; and, if it is then all right, of course I suspend the treatment, and patiently wait the hoped-for result.

So much care is necessary in the removal of the mucus for microscopic examination, that I may be pardoned for referring to it again. The patient is placed in the left lateral semi-prone position, as I have elsewhere so minutely described, and my speculum is introduced, and some of the vaginal mucus drawn up with a small glass syringe, previously washed out with warm water. This is deposited on the object-glass; the vagina is then cleared of all secretion, whether vaginal or cervical, the whole of the vagina and the os uteri being thoroughly wiped over with a pledget of cotton. This is for the purpose of guarding against the possibility of mixing vaginal with cervical mucus, which would, of course, spoil the whole experiment. The cervix is then brought forward either by the depressor or a tenaculum, if necessary, which enables us to look directly into the cavity of the cervical canal. The syringe is then to be again thoroughly rinsed in warm water; its nozzle is passed into the gaping canal for half an inch, and the cervical mucus in its lower segment is drawn out. The instrument is emptied, washed out again with warm water and reintroduced up to the os internum, and another portion of mucus is drawn out, provided there is any left after the first effort. Thus we have three specimens of mucus; *i. e.*, one vaginal, and two cervical. The cervical secretion should be clear and translucent and about the consistence of the white of egg. If it contain any little opaque specks of milky whiteness, it invariably poisons the spermatozoa to a greater or less extent. We sometimes find the cervical mucus perfectly clear, and yet poisonous to the spermatozoa. Here we would naturally expect to find excessive alkalinity of the secretion; but I have not been able to detect it. In these cases, it has seemed to me that the spermatozoa were killed—drowned, as it were—by the very abundance of the secretion. I do not here allude to cases of uterine catarrh, where the secretion is very thick and albumino-purulent; for, of course, this is a deadly poison to the living principle of the semen. But I allude wholly to such cases as have been changed by treatment to a condition giving rise to a secretion seemingly normal, so far as an ordinary ocular examination is concerned. Here the microscope is our unerring guide. The mucus may be clear and perfectly normal in appearance; but, if it kill the spermatozoa, then there is still some point in the canal of the cervix, or in the cavity of the uterus, that gives out a vitiated secretion; and this must be found out and corrected before the case is wholly cured. When we find living, active spermatozoa high up in the cervical canal thirty-six or forty hours after coition, we can pronounce the case cured, so far as it can be by surgical means, and not till then.

It is time for us to pause and consider if there is not something more to be done for the sterile condition, than to split up the cervix uteri. I look upon this operation as one of great importance, as one of the most valuable in uterine surgery, but I think that we have followed too blindly the example and teachings of its illustrious author, Sir James Y. Simpson. For myself, I am now sure that I have cut open the cervix uteri, perhaps scores of times, when it was both useless and unnecessary; and I know that others have have done the same thing. Do not misunderstand me. I speak here solely of the operation with reference to the sterile condition, when it would be wholly useless if the husband happened to be sterile, and certainly unjustifiable unless imperatively called for by considerations of health. Incision of the cervix for dysmenorrhœa is one thing; incision of the cervix for sterility, even if there be dysmenorrhœa, is another, and it behooves us to draw the line of distinction in every case, and not to take it for granted that every woman is sterile who may have dysmenorrhœa or feeble health, or that every man is prolific who may be vigorous and enjoy good health. I am sorry to say that I have had the misfortune to incise the cervix in half a dozen cases of sterility, where I found afterward, to my great mortification, that the husbands were incapable of procreation, because their semen had no spermatozoa, and that, too, since I have known the value of the microscope. In each case the operation was called for to restore health, but was totally useless for the relief of its incidental accompaniment, sterility, and would not probably have been submitted to for considerations of health alone, had it not been for the hope of offspring afterward. I made the mistake of operating on these cases, because the social position, moral character and appearance of health in the husband, conjoined with the excessive dysmenorrhœa and utter prostration of the wife, led me to operate without the preliminary step of ascertaining whether there were spermatozoa or not. I wish others to profit by my mistakes; and I am less ashamed to tell you of them, than I am to own them to myself. However, this can never happen to me again, and should not, after this warning, happen to any of my brethren. I know many men who have no spermatozoa, and cannot therefore become fathers. They are all strong, active men, in the prime of life, and all perform the sexual function with vigor. The very fact of their natural vigor and strong passions had been their ruin, for most of them had contracted urethritis during their early and unmarried life, and had suffered from its unlucky sequence, epididymitis. To further illustrate the necessity of the microscope in this department of surgery, I shall append a few cases drawn up as succinctly as possible.

No. 1 had consulted two of the most eminent physicians in England, and remained under the care of one of them for many weeks. She said that during that time the neck of the uterus was repeatedly cauterized. She got impatient and went to another physician, who told her that the caustic treatment she had submitted to was worse than useless; and that a surgical operation was the only thing to be done. She consented to it, and he incised the cervix bilaterally. She did not conceive, and two years afterward went to Paris to see me. I found the uterus normal in all its relations, the os tincæ and cervical canal sufficiently patulous. I explained to both husband and wife the importance of examining the cervical mucus four or five hours after coition. They returned the next day; the cervical mucus contained spermatozoa; therefore there was no necessity for any further surgical operation. But the spermatozoa were all dead; therefore there was a necessity for a treatment to rectify the vitiated cervical secretion. She remained in Paris a few weeks under my care, was cured, and became a mother in a year after her dismissal. Now, if the first physician had used the microscope, as I direct, he would probably have found that the semen never entered the cervix at all; and, if the second one had done the same thing, he would certainly have found that the mucus of the cervix poisoned the spermatozoa.

No. 2, a lady, in the highest ranks of life, was sterile. The cervix uteri was incised bilaterally. She had pelvic cellulitis afterward. Two years after this I saw her, and she was still childless. The microscope showed that the cervical mucus, examined four hours after coition, killed all the spermatozoa. While this condition exists conception is impossible.

No. 3, sterile, was treated for sterility in Amreica, for a long time (two or three years). She went to Europe; had the cervix cut open, and was sent away with the promise of offspring. I saw her some time afterward. The microscope proved that the husband was sterile. Therefore, the previous treatment at home and the operation abroad were useless. I could relate serveral other cases like the above. But, as I have often made the same mistake before I fully understood the value of the microscope, I forbear.

No. 4, married four years; sterile. She had dreadful dysmenorrhœa, followed by discharge of a bloody brownish mucus, of an offensive odor. The uterus was anteflexed; anterior wall hypertrophied; os uteri small. I was in doubt, at first, whether to recommend an incision of the cervix or not. I told the husband that an operation would be necessary if the semen did not enter the canal of the cervix; but, if it did enter, the case might be cured without cutting. The wife came to see me the next day, some five or six hours after sexual intercourse. A drop of mucus from the cervix contained spermatozoa in great abundance. Here, the whole question of diagnosis and treatment was settled at once and in the only way possible, by the microscope. For this one examination proved all that was essential to know—viz., 1. That the semen was perfect; 2. That it entered the cervical canal, and therefore there was no surgical operation necessary; 3. That the cervical mucus poisoned the spermatozoa, and hence a treatment directed to the utero-cervical canal was indicated. After the next menstruation (a month's treatment), the cervical mucus was considerably improved, for it contained large numbers of active spermatozoa. At the end of two months, I found living spermatozoa in the cervical mucus, thirty-six hours after coition. All treatment was now, and suspended after the next menstruation conception took place.

No. 5, married five or six years without offspring. The uterus was small, and retroverted by a fibroid about the size of a walnut, on its anterior surface, just at the juncture of the cervix and body. The os was very small, so small that a most distinguished accoucheur advised incision of the cervix, to admit the passage of the semen, although he was not in the habit of performing the operation, and, as a general rule, was opposed to it. In former years, I would have given the same advice without the slightest hesitation. But now I said, no. Let us see if the cervix admits the semen. If so, the operation is hardly necessary. If not, it is. I saw the wife the next day. A drop of cervical mucus, under the microscope, determined the question against the operation at once; for the mucus was full of spermatozoa, but they were all dead. During the treatment of this case, I have seen the mucus in the lower segment of the cervix full of living spermatozoa, while that taken from the os internum was full of dead and dying ones. Nothing but the microscope could have revealed the truth in such a case as the above.

No. 6, married eight years, sterile, had been treated by several distinguished physicians for the sterile state; and had been to Ems, and other watering-places, all with no result. At last she came to Paris, to see my friend Sir Joseph Olliffe, and he called me in consultation. I found a long, conical, indurated cervix, with a small os—just such a case as I would have pronounced sterile by necessity, and just such as I have over and over again operated upon without further thought. But now I wished to be sure, before recommending an operation. After explaining the necessity for it, I requested this lady to come and see me, four or five hours after coition. She returned the next day. I could find no spermatozoa in either vaginal or cervical mucus. I requested her to come again. I saw her two days afterward—no sign of spermatozoa. I then told her that. perhaps the seminal fluid all passed away in the act of rising and dressing. She thought it did. After further explanations, she readily agreed to send for me some morning, to verify the state of affairs. She was a very sensible woman, and fully understood the reasons given. A day or two afterward, I saw her in bed, about thirty minutes after sexual intercourse. The vagina was full of semen, and I removed about a drachm of it and went home immediately for the microscopic examination. But, unfortunately, there were no spermatozoa.

Not very long ago (seven or eight years) I had the idea that sterility was essentially a female infirmity; that men were never sterile except when impotent; and that any man, legally competent for the married state, was physically so for procreation. But the microscope unsettles and settles all such vague notions. It is natural to suppose that a strong, vigorous man is more fitted for procreation than a weak, puny-looking one. Some of the greatest lights of the profession have held such views as this. It was only two or three years before the death of the lamented Trousseau, that he said to me, in speaking of a case we had under consultation, "If our patient only had a man for a husband, all would be right." I subsequently found out that the husband's passions were strong; that his semen was perfect; that it entered the cervix in great abundance; and that the spermatozoa were there poisoned by a vitiated secretion. I mention this to show that we must not judge from appearances, when it is so easy to settle the question by the microscope.

No. 7, married nine years, sterile, had consulted several distinguished physicians, one in Germany, who told her it was useless to try any further treatment, as she was now well enough, and that it was the fault of her husband that she did not conceive. I explained to her that there was nothing easier than to determine that question at a single visit. She came the next day. I removed some vaginal mucus; also a mass of cervical, as large as a pea, that was just hanging from the os; also some from within the canal. The vaginal mucus contained spermatozoa, but, of course, they were all dead. The mass of cervical mucus that hung out of the os contained spermatozoa in abundance, all dead. The mucus from the interior of the cervix was wholly devoid of spermatozoa.

Here the microscope settled the whole question. There was no longer any guess-work. 1. It was not the fault of the husband that there had been no conception. 2. The seminal fluid did not enter the canal of the cervix. 3. The spermatozoa were killed by the cervical mucus, where the two came in contact. As the shortest and best method of treatment, I incised the cervix. After the subsequent menstruation, semen was found to enter the canal of the cervix. After the next period, they were found there in abundance, and all living. In three months thereafter, she conceived. In another three months, she miscarried, in consequence of a fall. Six months after this, she conceived again; and a year ago she became a mother.

So far I have related only cases of natural sterility, and were it necessary, I could give you scores more of the like character, but, as you perceive, there is so much sameness among them, that it would be superfluous. However, bear with me a moment longer, while I give you one or two illustrations of the value of the microscope in acquired sterility:

No. 8, aged 36, had given birth to one child, ten years ago. Her general health was perfect, but she did not conceive again. She was anxious for more offspring—had been to various watering-places, and had consulted several distinguished physicians. At last she fell into the hands of my friend Dr. Lheritier, who brought her to me. I found the uterus hypertrophied, and somewhat retroverted. The os was rather small, and the cervix indurated, and I had some doubt whether the semen could enter the cervical canal. But a microscopic examination proved that it did, and that the cervical secretions killed all the spermatozoa. This case was under treatment in January and February, and again in May and June. When she left, in June, living spermatozoa were found in the cervical mucus, in great abundance, thirty-six hours after coition. We, therefore, pronounced the case cured. She conceived a month afterward, and was safely delivered at term.

No. 9. We often fail to cure curable cases because the treatment is sometimes so tedious that both patient and doctor get mutually tired, and both are glad to quit. Madame ——, aged 34, had one child, eight years ago; subsequently had chronic cervical inflammation; was cauterized too much. The cervix became indurated and the os contracted. She wanted more offspring. I was in doubt about cutting open the cervix. A microscopic examination proved that the semen could not enter the cervix. Accordingly, I incised the os. After this, the semen entered the canal of the cervix, but its mucus killed all the spermatozoa. The mucus was not as clear and limpid as it should be, and it had white milky specks in it, looking as if it had been mixed with a little of the vaginal secretion. The lining membrane of the cervix was too red, and rather granular. This was cauterized even up to the cavity of the uterus; and various other local as well as general remedies were adopted and carried out from time to time for twelve months. The character of the cervical secretion gradually improved, and at times showed some living spermatozoa, and again all were dead. This patient did not despair, notwithstanding a fruitless treatment for so long a time.

A sponge-tent had revealed long ago a small flattened cystic tumor in the canal of the cervix, situated on its posterior face, just at the os internum. I had repeatedly suggested the propriety of extirpating it. After all other means had been exhausted for restoring the cervical secretion to a normal state, the operation was agreed to. In June, 1867, nearly two years after we began the treatment, a sponge-tent was introduced; the canal of the cervix was fully dilated, and a cystic tumor, about the size of the end of the little finger, was extirpated. Three months afterward, the cervical mucus was greatly improved; and in March last, after a treatment of more than two years and a half, I examined the secretions fifteen hours after sexual intercourse, and I had the satisfaction of saying, "At last, madam, I find the cervical mucus perfect; it is full of spermatozoa, and all very active. We can now hope for conception." Conception dated from that period, for she did not menstruate afterward. But for the microscope, I would have dismissed the case as cured after the incision of the cervix uteri, and she would have remained, in all probability, sterile to the end.

Once I thought that the most common obstacle to conception was a contracted cervical canal, coutracted at its outlet, at the os internum, or throughout its entire length. But, if I were now asked, "What is the most frequent obstacle to conception?" I should unhesitatingly say, "An abnormal utero-cervical secretion that poisons or kills the spermatozoa." I can call to mind numbers of cases where, in former years, I incised the cervix, when the operation was satisfactorily done, and yet the sterility persisted. In some of these I have now not the least doubt that the husbands were sterile, and in others I have as little doubt that the cervical mucus was poisonous to the spermatozoa. If I had then possessed the exact knowledge of to-day, how much more satisfactory would it have been for me—how much better for my poor patients!

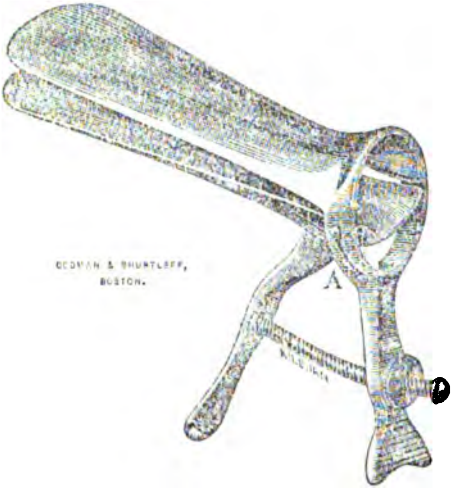
I could go on for hours with cases to illustrate the principles already laid down. The foregoing are taken at random and are sufficient for the purpose. I have not treated a single case of sterility as such in the last six years, without determining the three questions so essential to success that were stated at the outset of this paper, except the half-dozen cases cases already alluded to, and in these the microscope at last revealed the truth.

Before closing this paper, pray allow me to say a word personal to myself, which is, at the same time, in vindication of the honor and progress of medicine. When my book on "Uterine Surgery" appeared, in February, 1866, it was noticed, generally, favorably by the medical press, and always honorably, with but one exception abroad, and two or three at home. The Medical Times and Gazette, one of the most excellent and influential journals of the day, conducted with great ability, and usually with liberality and decorum, condemned, in the strongest terms, my investigation of the seminal fluid, and said that "this dabbling in the vagina with speculum and syringe" was incompatible with decency and self-respect. Now, for myself, I see no indelicacy or impropriety in taking mucus from the vagina and uterus for microscopic examination. It is no more indelicate, no more impure, than to investigate the character and properties of salva, or bile, or urine, or fæces, or pus. And where is the scientific physician, nowadays, who could or would dare to give an opinion on any obscure and complicated disease without some such investigation? To answer that question, I have only to call to the witness-stand such men as Beale, Hughes Bennett, Gull, George Harley, Sir William Jenner, Bence Jones, George Johnson, Stokes, and the immortal names of Addison and Bright; and in my own country, the great names of Alonzo Clark, Austin Flint, John T. Metcalfe, and a host of others. Opposition and ridicule are ever ready, but never yet crushed out a great truth. With the simplicity of my nature, and with the honesty of my purpose, there can be no indecency, and no sacrifice of self-respect in making any necessary physical examination whatever, if it be done with a proper sense of delicacy, and with a dignified, earnest, and conscientious determination to arive at the truth—a truth without which every step is in the dark, but with which all is as clear as the noonday's sun.—[*New York Medical Journal.*

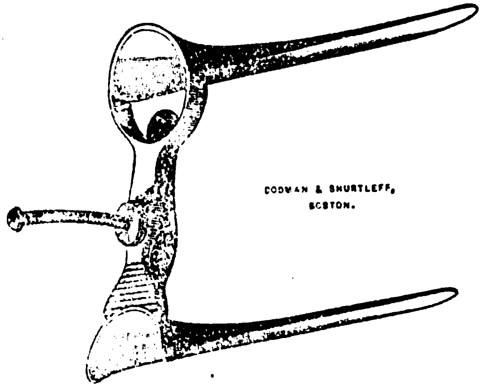
ART. II.—A MODIFICATION OF CUSCO'S SPECULUM, BY WHICH IT BECOMES ALSO A RETRACTOR. By HORATIO R. STORER, M.D.

It is thought by some practitioners that there exists an undue disposition on the part of other gentlemen to differentiate too closely the diseases that come under observation and the instruments by which they are to be treated. As an instance in point, it has been asserted that every accoucheur feels it incumbent upon him to invent a new midwifery forceps and every gynecologist a speculum. The charge has, to a certain extent, been well founded. Fully aware, however, of the fact, I yet venture to describe a new competitor for professional favor, confident that others will obtain the same satisfaction from it that I have myself done.

The great variety of specula now in use subdivide themselves into two classes, specula proper and retractors; each useful for certain purposes, and, for some of these, indispensable. Of the several forms, cylindrical, bivalve and multivalve, almost every physician has his own favorite instrument, which he endeavors, often without avail, to make answer diverse purposes. Till now, so far as I am aware, no attempt has been made to combine these two principles, separating the speculum as such from the retractor, in a single instrument.



A year ago, I was discussing with my assistant, Dr. Stone, the features of Dr. Thomas' telescopic speculum, and remarked to him that, while I was averse to the unnecessary multiplication of instruments, I thought it possible to improve upon the best yet in use, which I considered Cusco's to be; that is, the straight handled form of it, for the lateral screw connecting the blades where they are made to fold, is almost sure to become entangled in the hair upon the vulva and thus annoy one's patient. Some six months afterward I had occasion to remove stitches from the anterior vaginal wall, after an operation for vesical fistula, and happened to have no retractor with me, I therefore directed Dr. Stone to remove the screws connecting together the



blades of Cusco's instrument, and by reversing their relative position I had at once the retractor that I desired. By subsequently attaching a movable spring peg in place of one of the screws, and rendering the other one a fixed point, immediate change from the speculum to the retractor, and back again, became possible by a slight touch of the finger.

By this simple spring attachment at the side of the Cusco bivalve, as shown in the second cut, the blades may at once be disjointed, swung around back to back, and there fixed by a turn of the nut already existing upon the screw traversing the handles, with the effect of giving a retractor equal in working facilities to that of Sims, as made evident by the second wood-cut.

The simplicity of this instrument. which is made to do the work of two, its portability, as compared with the usual retractors, its ease in use, and its moderate cost, are all strong arguments in its favor, while as a speculum it preserves the great merits, too little understood, of the Cusco instrument, that its expansibility is greatest at the uterine extremity of the vagina and least at its outlet, that it at once receives the cervix without having to search for it, and that it is self-retaining.

If it is as appropriate for an inventor as for a naturalist to attach to a novelty its specific name, I would request that that my instrument should be known as the Boston speculum, as I am anxious to do what little I can for the credit of my native city.—*Bost. Med. and Sur. Jour.*

ART. III.—INSALUBRITY OF CAST-IRON STOVES.

When the attention of the Academy of Sciences of Paris was drawn some time since by M. Carret, one of the physicians of the Hotel Dieu of Chambery, in several papers, to the possible evil consequences of the use of cast iron stoves, but little interest was excited in the matter. Recently General Morin has again brought the subject forward with better success. M. Carret does not hesitate to assert most positively that cast-iron stoves are sources of danger to those who habitually employ them. During an epidemic which recently prevailed in Savoy, but upon which M. Carret does not furnish us with any detailed information, he observes that all the inhabitants who were affected with it made use of cast-iron stoves, which had lately been imported into the country, whereas all those who employed other modes of firing, or other sorts of stoves, were left untouched by the disease. An epidemic of typhoid fever, which broke out some time after at the Lyceum of Chambery, was regarded by the same author as being influenced by a large cast-iron stove in the children's dormitory. General Morin speaks in the highest terms of M. Carret's memoirs, to which the recent experiments of MM. Trorst and Deville give additional importance. These able investigators have established that iron and cast-iron when heated to a certain degree become pervious to the passage of gas. They have been enabled to state the quantity of oxide of carbon which may, as they suppose, transude from a given surface of metal, and have shown that the air which surrounds a stove of cast-iron is saturated with hydrogen and oxide of carbon. They conclude that the cast-iron stoves when sufficiently heated absorb oxygen, and give issue to carbonic acid. General Morin related some comparative experiments which had been performed by M. Carret, and which, he said, corroborate this theory. Thus, after having remained during one full hour in a room heated to 40° (centigrade) by means of a sheet-iron stove, M. Carret perspired abundantly, got a good appetite, but felt no sickness whatever; he had obtained the same result with an earthenware stove; but the experiment, when performed during only one-half hour with a cast-iron stove, had brought on intense headache and sickness. M. Deville, at the same sitting of the Academy, supported these views with considerable warmth. The danger which attended the use of cast-iron stoves, he said, was enormous and truly formidable. In his lecture-room at the Sorbonne he had placed two electric bells, which were set in motion as soon as hydrogen or oxide of carbon was diffused in the room. Well, during his last lecture the two cast-iron stoves had scarcely been lit when the bells began to ring.

The facts are certainly startling, if we consider the reputation of comparative harmlessness which these articles of domestic use had hitherto enjoyed. In France, particularly, the lodgings of the poorer classes, the barrack-rooms of the soldiery, the artist's studios, the class-rooms of large schools, &c., are commonly heated by this means. Of course, we are inclined to question M. Carret's conclusion; but the apparently accurate character of the facts recorded, joined to the authority of those who have brought them forward, demand for them a serious investigation. We are glad to be able to add that a committee has been appointed by the Academy for the purpose of examining thoroughly into the subject. This committee is composed of MM. Claude Bernard, Morin, Fremy, Deville, and Bussy, and we shall not fail, when the time comes, to mention what shall have been the result of their researches.—[*Lancet.*

ANALYTICAL DEPARTMENT.

"Qui e nuce nucleum esse vult, frangit nucem."—PLAUTUS.

ART. I.—ANALYSIS OF VARIOUS ARTICLES. Published in the Medical Times and Gazette, the British Medical Journal and the London Lancet. (Original copies.) By PROF. JAMES M. HOLLOWAY, Associate Editor.

Dr. Alex. Boggs, of the Indian army, recommends as a substitute for tincture iodine, carbolic acid and glycerine, the following mixture: Tr. iodine, one drachm and a half; glycerine, two ounces; solution chlorinated lime, six ounces. This solution, which is colorless and not disagreeable, may be used advantageously as an injection in diseases of the vagina and rectum, and for allaying severe itching in vulva pruritus, and also in leucorrhœal affections.

Dr. Alex. Keith, of Normandy, has in the last six months treated six hundred cases of fever, scarlatina, measles and small-pox, by the internal administration of carbolic acid, with only five deaths.

He employs the following formula: "Carbolic acid and acetic acid, of each one drachm to one drachm and a half; tr. opii, one drachm; chloric ether, one drachm; water, eight ounces. Dose--one tablespoonful every four hours.

The following he gives as the "physiological effects:" "1st. It produces profuse perspiration; 2d. It rapidly lowers the pulse, so much so that in twenty-four hours the pulse will fall from 120 to 60; skin cool and moist, with subsidence of fever; and, in scarlatina, the soreness of the throat much diminished; 4th. After its use for the same time, the appetite continues to improve; 5th. I have found it more useful at an early stage of the disease, although, given afterwards, it very much modifies the symptoms, and carries the patient through the different stages of the disease much more quickly than any other treatment I have seen; 6th. In some cases the urine appears smoky, as if fine charcoal had been used with it."

A letter to the London Lancet, from Edinburgh, January 12, 1869, states, that of the last twenty-three cases of ovariotomy performed by Dr. Thomas Keith, all, except one, are now alive and well.

Dr. Barraut, Sanitary Inspector at Mauritius, and W. H. Tassier of the same place, have recently been using carbolic acid internally and hypodermically in the treatment of malarious fever, with seeming good results.

They give one grain of the pure medicinal acid in one ounce of water, to which is added a little brandy or bitter infusion, three times daily, with the effect of rendering the relapses less frequent than after the use of quinine. Cases in which the paroxysms were ushered in by vomiting seemed to be the most favorable for the action of the acid.

For a hypodermic injection they add to four ounces of water sixty-four grains of the acid, of which as much as *thirty minutes* were used at a time.

Dr. Wallaston, of the Liverpool Southern Hospital, reports an interesting case of fracture of the spine and displacement, in which reduction and complete recovery followed the employment of the pulleys. "The eleventh dorsal vertebra was displaced, and protruded fully an inch and a half from its normal position."

Treatment consisted in placing the patient upon the floor, upon a mattress, and having the shoulders securely fixed, extension was made by pulleys attached to both thighs. During the extension, the hand, placed over the seat of injury, felt the protruding bone disappear, "without crepitus or jerk." Chloroform was administered before the extension was made. This occurred on November 18, 1868, and the patient was discharged, cured, January 1, 1869.

The Doctor inferred the existence of a fracture of the vertebra, from the impossibility of dislocating this bone entire.

M. Kœherlé, the most distinguished of the French ovariotomists, has operated sixty-nine times, and with success in two-thirds of the cases. In the last twenty-two cases, four-fifths have been successful, which result shows an increased skill from experience.

M. Mallez, who has had a large experience in the treatment of *catarrhus vesicæ*, recommends, as highly efficacious, the following, to be injected into the bladder: "Water, 10 ounces; tr. iodine, 45 drops; iodide potassium, 15 grains." Should this cause much pain, add 15 grains of extract of belladonna.

In an editorial in the London Lancet it is recommended that those who are now employing Listar's carbolic acid treatment, should use at the same time the alkaline sulphites (of magnesia and soda) internally, as indicated by Pasteur & Polli, in order to "attack the enemy on both flanks."

Dr. Crouch, on the 11th of December, 1868, reported to the Clinical Society of London a case of primary amputation of the leg for gunshot, before the patient had reacted from the shock of the injury. The convalescence was slow.

Mr. Callender justified such a course of procedure—operations in such a condition being well borne by young patients especially.

Mr. Maunder took the opposite view; regarding success in operations performed during collapse, as exceptional.

Dr. Pavy, before the same society, reported the favorable results in three cases of *diabetes*, treated by opium or morphia, in gradually increased doses, without restriction of diet. In each case, throughout the whole period of treatment, the dose of opium, the quantity of urine, and the quantity of sugar excreted daily, were recorded.

Dr. Murray, of the Great Northern Hospital, has been using lately, with good results, a preparation of glycerine and tannin, in the non-specific forms of abrasion, ulceration, or granular inflammation of the os and cervix uteri. The preparation is applied freely with a camel-hair pencil.

For the relief of leuchorrhœal discharges a roll of cotton saturated with the mixture is introduced through a speculum, and allowed to remain a few minutes between the vaginal walls.

At the *Hôpital des Cliniques*, Paris, Prof. Richet announced that he did not intend to imitate Trousseau's plan of clinical teaching, which consisted in the selection of exceptional cases, which, from their rarity, enabled him to make his lectures brilliant and animated. The Professor preferred rather the opposite plan, pursued by Rostan, Chomel, Boyer and Desault, of selecting simple cases as the subjects of lectures.

Mr. C. F. Maunder, Surgeon to the London Hospital, reports the favorable results in primary excision of the elbow joint for *injury*. He only resorts to amputation of the arm when the soft parts, as well as the bones, are extensively damaged. He recommends the removal of large fragments of the humerus and of the bones of the forearm, "rather than submit a patient to the terrible alternative of amputation."

Samuel Wilks, M.D., physician to Guy's Hospital, calls attention to the importance of *cross furrows* upon the nails, as indications of deranged nutrition during a previous attack of severe illness. He suggests, also, the possibility of ascertaining the date of an attack by noting the rapidity of the natural growth of the nail and the seat of the *furrow*.

Dr. Samuel Wilks, in his clinical lectures on progressive muscular atrophy at Guy's Hospital, differentiates between this disease and locomotor ataxy, by observing that the latter is "more especially confined to the lower end of the cord, and, as a consequence, the legs may be solely affected," while the former usually commences in the upper extremities.

Of the three theories in regard to the cause of the disease, viz: 1st, its origin in the spinal cord; 2d, a primary affection of the anterior roots of the spinal nerves; 3d, the commencement of the disease in the muscles themselves; the first has been proved, by more recent investigations, to be the correct one. Virchow and Gull have always held this view, while Cruveilhier and others hold to the third theory.

Dr. Wilks reports a severe case of the disease in a girl aged 24 cured in six months by faradization rigidly followed up and the internal administration of iodide of potassium.

Mr. Henry Smith thus concludes a report "on the condition of the limb after excision of the knee-joint in four cases;" one, a boy 18 years old, seen 12 years afterward; another, a man aged 21 years, seen 14 months afterward: the third case, a boy aged 12, seen two years after the operation; the fourth case, a girl aged 14, seen 11 months afterward; "that in each case the patient has been restored to health and a useful limb has been preserved to its possessor, and these two results are what the surgeon seeks for in performance of excision."

Dr. T. P. Heslop, physician to the Children's Hospital, Birmingham, reports a very remarkable case of general emphysema in a boy, aged four years, from gangrenous sores at the angles of the mouth, after measles. Autopsy showed the absence of ulceration in the air passages and proved conclusively that the emphysema resulted from the entrance of air, during *expiration*, between the integument and mucus membrane of the angles of the mouth, which were cleanly separated, so that the handle of a scalpel could be inserted between them, for nearly an inch, into the cheek.

The efficacy of the application of the spinal ice-bag for the relief of sea-sickness is attested in two letters from medical men, "on board ship," addressed to John Chapman, M.D., who recommended its employment. The effect was to induce sleep and cause food to be borne.

Dr. Ballard read a paper, November 21, 1868, before the Metropolitan Health Association, on the epidemic waves of scarlatina, in which "he inferred from his records, and his inference was illustrated by some diagrams exhibited, that in any year scarlatina may be expected to spread when the mean temperature, having risen above 60° in the course of the summer, has begun to fall below that temperature, if, at the same time, the humidity of the atmosphere increases to 75° or upward. As the temperature becomes lower in the progress of the epidemic, the cases will be more numerous the higher the atmospheric humidity."

The Medical Times and Gazette, for December 5, 1868, copies a paragraph from the Pall Mall Gazette, going to show that, recently, *scarlet* and low fever were making great ravages at Barking, the situation of the outlet of the main drainage works. The Registrar of the district reports a great increase in the number of deaths from scarlet, typhoid and typhus fevers, but remarks "that probably, the great heat of last summer has had something to do with this mortality." On the other hand, the medical men and inhabitants generally believe that the sewage works have proved very detrimental to the health of the district.

A correspondent of the same journal recommends the use of iron and quassia by the mouth and rectum for the cure of ascarides. When the bowels are torpid, during the treatment, an occasional dose of castor oil and turpentine will cause the expulsion of the dead entozoa.

Dr. Thomas B. Peacock, Physician to St. Thomas' Hospital, in a review of the Registrar General's returns of mortality in London during the summer of 1868, uses the following language: "During the summer several cases of acute albuminuria also occurred, *not connected with the eruptive fevers*, (which were prevailing extensively at the time,) but arising from checked perspiration in persons who were following laborious occupations, who had been engaged in athletic sports, or who exposed themselves in the evening after very hot days. Since, also, the hot and dry weather of the summer days has been succeeded by the cold and damp autumn, cases of acute congestion of the kidneys, giving rise to albuminuria, have been unusually common and have occurred both independently and during the course of, febrile diseases, (as typhoid and rheumatic fever), as well as after scarlet fever."

Mr. Thomas Smith, on the 8th of January, 1869, presented, before the Clinical Society of London, a case of rupture of the intestine, in which the gut had been punctured before death in order to relieve the distension. The same procedure had been previously adopted in similar cases.

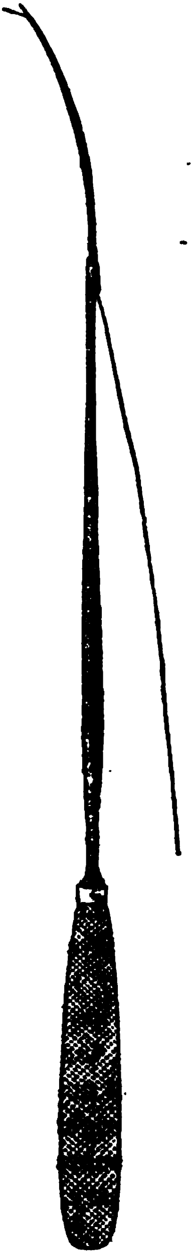
Mr. Holthouse recommended the same treatment in strangulated hernia as an aid to reduction, by taxis. A fine trocar would be more suitable for this purpose than the needle.

CLINICAL RECORDS.

"Ex Principiis, nascitur probabilitas: ex factis, vero veritas."

ART. I.—THE SUTURES FOR VESICO-VAGINAL FISTULA INSERTED BY MEANS OF A CANULA-NEEDLE, WITH REPORT OF A CASE. By PROF. PAUL F. EVE, M.D., of Nashville.

In 1860, I utterly failed to benefit a patient laboring under that most distressing affection in the female, *vesico-vaginal fistula,* in which a clamp suture was tested. There is little doubt now but that this case could have been relieved by the recent improvements in gynecology. Still I have never been satisfied with the practice pursued in introducing the sutures for closing the fistulous opening, after its edges are prepared for reunion. The short, curved needle, insecurely held and imperfectly directed by long forceps, armed with a long, double silk thread, having attached to it a long silver wire, also doubled, the whole of which is dragged through the entire tract made in the soft parts, with the traction on the cord at right angle to its proper course, is surely difficult, cumbrous, painful, tedious, unscientific, and now unnecessary. Frequently half an hour is consumed in this part of the operation, while the patient is in a constrained and exceedingly unpleasant position. By the canula-needle the ligatures may be applied at any desired point in a few minutes. In witnessing an operation for this sloughing of the vesico-vaginal septum, to which I was kindly invited in the Sisters' Hospital in St. Louis last fall, and, impressed with the difficulty and delay in applying the sutures, the hollow needle was proposed, and fortunately an opportunity soon occurred for proving it.



On the 15th of November last, I was called to a case of vesico-vaginal fistula in a young lady, who, during her first delivery, a week or two previously, had had the bladder neglected for many hours, which resulted in a transverse fissure of about an inch and a half by three-quarters of an inch, and situated about an inch and a half from the orifice of the urethra. The 16th of January, 1869, assisted by Dr. Shumard, professor obstetrics, etc., in the Missouri Medical College, and Drs. Poindexter, Prewitt, Moore and Maughs, the patient was placed in the position now recommended by Dr. Sims, and accepted by the profession; the anterior lip of the fistula was freely excised by a knife and the posterior one with scissors, then with the canula-needle, such as I have been using for years, carrying a very fine silver wire, about nine sutures were introduced in some ten minutes.

Tiemann's improvement, as well as Dr. Bryant's, formerly of St. Louis, now of Lexington, Ky., each consisting of a longer canula, with forceps to hold and assist in pushing forward the wire, were both tried, but found to bend in thrusting it through the parts, and, moreover, permitted the metallic ligature to kink. The simple canula, such as is represented by the accompanying woodcut, was admitted by all present to be the best instrument and gave entire satisfaction in planting the ligatures. I prefer, too, the ordinary knot, for one can see the line of union and regulate the pressure in tightening the stitch. The suture-adjuster obscures this, nor can we tell how many turns to give the forceps in twisting the wire. After one knot, the adjuster may be used.

On the tenth day, after the usual treatment of such cases, which, in this instance, was carried out faithfully, the sutures were all removed, except two, and these on the twelfth, when union of the most satisfactory character was found existing.

ART. II.—CANCER OF THE TESTICLE—EXTIRPATION. By W. H. DAUGHERTY, M.D., of Stonewall, Ky.

On the 28th of May, 1867, I was consulted by a hearty, robust, healthy looking man aged twenty-two years. I learned from him that he had been suffering for two months, with enlargement of the left testicle. On examination I found the testicle double the size of the unaffected one; of a reddish, brown color, hard, spherical in shape, and at times painful. No evidence of any syphilitic taint. No glandular enlargement in the groin. Urethra healthy. Indulged his amative propensities occasionally, but not excessively. Ancestry free from strumous or cancerous affections.

Treatment.—Enjoined rest, iodine paint and mercurial cathartics.

June 3. No improvement, enlargement progressing; continued treatment, with the addition of cold lotions of sulph. zinc.

June 24. All the symptoms aggravated; discontinued the mercury and gave iodide potassium, grains x, three times a day.

July 4. Testicle greatly enlarged; severe pains in the loins; opened several veins of the scrotum, and applied pressure with adhesive strips; used a suspensory bandage in connection with the above treatment.

July 14. Patient no better; discontinued the iodine paint and used friction with mercurial ointment.

July 24. Patient weak and emaciated; discontinued iodide potass. and substituted for it bromide potass., grains xxx, three times a day, and used active local depletion with the lancet.

The patient was kept under this treatment for two months longer. Used as a cathartic, when required, comp. cathartic pills. The enlargement of the testicle daily increased, and on the 7th of October, extirpation was decided upon. With the assistance of my brother, Dr. T. H. Daugherty and Dr. Henry Trigg, of New Columbus, Ky., we produced anæsthesia with chloroform and extirpated the diseased part. The incision was made from the external abdominal ring to the bottom of the scrotum. The skin being adherent, two elliptical incisions were made. Owing to extensive disease of the cord, it was brought down as low as possible and ligated with whip-cord; severed the cord and dissected out the testicle; secured the bleeding vessels as fast as they were severed. The incision was nine inches in length. The patient on being aroused, complained of sick stomach, but little or no pain from the wound. In about two hours secondary hæmorrhage set in; administered chloroform and ligated several small vessels; closed the upper part of the wound with sutures. Remained twenty hours with patient, owing to his extreme depression and constant vomiting. Administered an opiate and left the patient quiet; ordered water dressings and anodynes.

Two days afterward visited the patient; found him doing well, wound suppurating slightly; moved the bowels with magnesia, and ordered a mild, nutritious diet. I continued to visit the patient every few days. Wound healed well and rapidly; sutures and ligatures were removed at the proper time, except the ligature around the cord, which could not be easily removed. It was allowed to remain till November 20th, forty-four days after the operation. The patient now seemed a sound man; said he felt perfectly well; could ride or walk about with perfect ease; free from pain; restored in flesh. And when himself and friends were congratulating themselves on his restoration to health, January 1, 1868, he was suddenly seized with a severe pain in the region of the left kidney; suffered severely for ten days, when a dark spot appeared on the scrotum, which increased in size and discharged a bloody, sanious matter till his death, which took place February 1, 1868. His sufferings were so great the last weeks of his illness, that opiates had to be freely and constantly used.

The testicle removed weighed nineteen ounces after its examination, and I suppose eight or nine ounces in weight were lost by the examination. The central portion was purulent, the external almost as hard as osseous matter. The testicle was of a regular ovoid shape, presenting all the appearances of cancer. It measured six inches in length and four in diameter. There was no post-mortem. The cause of this death is interesting.

ORIGINAL CORRESPONDENCE.

"Sit mihi Fas scribere audita."

PARIS, FRANCE, January, 1869.

Claude Bernard, who, on account of ill-health, has been deprived of his labors for the last three years, at the Collége de France, again commenced his lectures on January 6, 1869. *La technique expérimentale,* or the art of experimenting, is to be his subject. He is, as your readers are doubtless aware, anything but a brilliant speaker, and especially is he difficult to follow in his lectures and to "report." I hope, however, to be able to give you a synopsis of them. In these, his first few lessons, he has simply given us a short review of the manner in which physiological experiments have been, are and ought to be practiced, together with his own views, as to the plan which the physiologist should follow, in making his investigations on the living subject.

The art of experimenting, though yet in its infancy, has *to-day* established its footing as a special and separate branch of science. Physiology is no longer the romance of medicine of former days. The time when it was included and taught *in connection* with other branches, such as anatomy, zoölogy, chemistry or medicine, is no more, for the physiologist is neither exclusively an anatomist, chemist nor physician; the object of his work is the study of the phenomena of life.

Bernard divides the experimenter into two classes: one the empiric and the other the systematic. The latter only undertakes such experiments as may agree with his preconceived ideas on the subject, but he leaves aside others which might give opposite results. To this class belonged Descartes.

The empiric, on the other hand, only accepts, as truths, what he sees and hears, but has no desire to develop these discovered facts, by farther investigations or by reasoning; of this school was Claude Bernard's predecessor, Magendie, who expressed himself as only possessing eyes and ears, for these alone are requisite, said he, to guide me in my physiological researches, and to bring in *reason* is quite unnecessary. In illustration of this his method, Bernard relates the following incident: When Magendie first made some inquiries into the properties of of the pancreatic juice and found it coagulable by heat like all albuminous fluids, he pronounced this property due to albumen; but when twenty years later, Cl. Bernard, then his pupil, found the coagulability due to a special substance, differing in some respects from both albumen and casein, and to which he gave the name of *pancrêatine*, Magendie simply said that, his system was right, and the only error he had committed was to have called it anything else than "a coagulable fluid." Such logic, however, says Cl. Bernard, will never advance science; it only serves to collect a number of facts which are left unexplained.

Other experimenters again, like Galen, formed their opinion from a single or a very limited number of experiments and thereupon founded entire systems of medicine; as did Broussais, for instance, upon the Brownian irritability. Or again, their experiments were totally lost sight of, by too much logic and argument. All these abuses have, to some extent, been modified in latter years, though to this day we are too hasty with our conclusions, and it not infrequently happens, that logic goes ahead of the experiment; and this is the more dangerous in its results, as the execution of the experiment becomes more difficult. To avoid all error, as much as possible, says Bernard, we must experiment with the greatest caution; reason alongside of, go step by step with, but not in advance of our experiments. Like the mathematician, in the analysis of his problem, we should, from time to time, retrace our steps, in order to arrive at a point, the truth of which is known and established; as to the method of experimenting, it remains the same, be this in physics or upon living bodies; all we need know is the *condition, under which the properties of bodies manifest themselves.* In inorganic substances, where we have but an exterior to examine, and when the properties are invariable, or nearly so, the experiment is comparatively easy, but in living matter it is otherwise, here *an interior* (by far the more difficult of the two) must be taken into account. We will never be able to explain the phenomena of life in considering the organism as a whole; we must address ourselves to *the anatomical element* of living matter, penetrate, so to speak, into their very interior, and there study and observe the changes which take place; the problem, however difficult, is possible and it is to histology that we must look as a basis for physiological explanation; once able to penetrate into the midst of living tissues, we can search for means, by which to attack them, and then change the entire organism, be this in health or disease, for the laws which preside in physiology, pathology or therapeutics remain the same. We can never thoroughly understand a disease, says C. Bernard, until we shall be able to produce, create the same at will, and it is then only that we may look for remedies. To say, for instance, that quinine or sulphate of quinine acts upon fever, says absolutely nothing in a scientific point of view; fever is a morbid entity and medicines only act upon an *anatomical element.* To explain the phenomena of life, *observation* is insufficient;

experiments are necessary; they are, in fact, the only means through which we can arrive at an explanation; we must learn to determine the necessary conditions, under which the vital properties of living matter manifest themselves, and unless we have an exact knowledge of these conditions, we can never master our problem.

Variable results in physiological experiments are no more admissible, for C. Bernard, than in physics or chemistry, for just as certain as sulphuric acid and potash put in proper contact will give sulphate of potash, just as certain should a phenomenon produced by a physical experiment be always and invariably the same, and the only reason that, as yet, they are not so, is simply because of our ignorance of the conditions necessary to produce them; for the moment the result is variable it ceases to be an experiment and it ceases to be a law.

In proof of the necessity of perfectly understanding this necessary condition, so as to produce equal results, Bernard cites us Magendie's well known experiments upon the anterior and posterior roots of the spinal cord. In 1822, Magendie announced that the anterior roots possessed "*some sensitiveness,*" whereas Charles Bell (about the same time) proved them to be totally insensible, reserving the properties of sensibility for the posterior roots only. In 1839, Magendie again took up his first experiments and this time found them not only a little but *extremely sensitive,* and this he demonstrated to his class at the Collége de France for nearly three months. Longet, who belongs to the school of rationalism, criticised Magendie's experiments, because of their contradictory results, and, repeating them before the Academy of Sciences, proved the truth of Chas. Bell's statement. Claude Bernard afterwards explained Magendie's error, by placing himself in the same condition as Magendie: The animal used for the purpose of demonstrating to the class was usually prepared for the experiment from one-half to three-quarters of an hour before the opening of the lecture. Bernard, making his experiments under similar circumstances, (that is to say, leaving the animal upon the rack an hour or two with the spinal cord exposed,) found a sensitiveness of the anterior roots, but this sensitiveness was pathologically developed by the suffering and exhaustion of the animal; for in the same experiment made with care (so as to avoid large and unnecessary lesions and allowing no time to pass by,) as had been done by Bell and Longet, no sensitiveness could be detected.

Another example to illustrate the point in question is that of Vulpian's experiments with the "venin crapaud," (a poisonous liquid secreted by the glands of the skin of the toad, and especially by the temporal gland.) This substance, inserted under the skin of a frog, or other inferior animals, very soon causes a paralysis of the heart's action, whereas the same poison administered to the toad seemed entirely innocent. Claude Bernard was not satisfied with these results, for, says he, they appeared to me irrational. He repeated the experiments, and found that Vulpian was right, but also that an *increase* of the dose injected under the skin of the toad acted precisely as it had upon the frog; that is to say, produced death by paralyzing the muscular fibres of the the heart; and how could it have been otherwise, said Bernard, an anatomical element is the same, wherever we find it, and there could exist no exception in this case.

The choice of the animal upon which we should make vivisections matters but little; to-day we use domestic animals, because they are easily obtained. There are circumstances, however, where a choice must be made, as for instance, in case of researches on the properties of the sympathetic system; there we could neither use the dog nor cat, so convenient for many other experiments, for in them, as in man, the branches of the sympathetic are united to those of the cerebro-spinal system, but we should choose the horse or rabbit, where these nerves form separate and distinct branches; or for the study of the tissues, for instance, the warm blooded animal (because of the rapid change which takes place after death) is little applicable, and therefore we experiment upon frogs, &c., where the waste and decay are less prompt. The muscular or nervous fibre is in them the same as in warm-blooded animals, or in man. Speaking of the necessity of directing our inquiries to the anatomical elements of tissues and there studying the changes which are brought about by disease or the different therapeutical agents, Bernard tells us, that this examination can not be done twenty-four hours after death, and, therefore, the autopsies, such as we practice daily in our hospitals, do not explain, in the least, the *cause* of death; they simply show which function or what part of the organism has suffered most, but they give no proof of the cause of death, for the lesions which we find (take phthisis for an example) existed just as well during life as after death. Living bodies never die in totality, only one or two of the elements lose their vitality, as do the fibres of the motory nerves, when curare has been administered; but to prove the real cause of death and the changes which have taken place in each anatomical element, "physiological autopsies" must be practiced (the examination of the body immediately after death) and, to do this with fruit, an extensive laboratory is indispensable. Ludwig is at present constructing one of these in Germany and Kühne another in Holland; we ourselves are to have one, at an early day, at the garden of plants; want of room preventing its construction near the college.

Four lectures have been expended on the different methods of securing the animal to be experimented upon; they contain little new, and I think a very few words can give a résumé of the subject.

(As Dr. Chas. Smith, of New York, whom we had the pleasure of meeting at the lecture-room, very correctly remarked, the French teachers, however eminent, must always take up a certain amount of time with preliminaries, before coming to the point.)

Aside of mechanical means, chloroform and ether alone deserve a mention, and curare, although not a narcotic, can also serve the purpose in some cases. Bernard admits the use of these agents in many instances, because they avoid the trouble which the pain and suffering of the animal might otherwise cause in the operation or its results. Of course, we know that they are not applicable in all experiments; if we wish to examine the secretions of an animal, we could neither use chloroform, nor any of the opiates as a retentive measure; for while the first would cause an undue flow of the secretions, the second would very materially lessen them and so produce inexact results. Chloroform and ether act upon vegetables as well as upon animals, and even a separate anatomical element. The sensitive plant, if exposed to the vapor of the ether for ten minutes, loses that delicate sensitiveness to which it owes its name, and an hour or two must elapse before these movements return again. The motion of the cellules à cils vibratiles (and which Gosselin has proved to be totally independent of the vitality of the mucous membranes which they cover, for their movements persist twenty-four and even forty-eight hours after death) is also stopped by the vapor of ether. Upon the spermatozoid its action is the same. The mode of administering chloroform depends upon the nature of the animal. In the frog, where absorption takes place by the skin, subcutaneous injections or immersion into water saturated with chloroform produce a rapid effect, while this same procedure in warm-blooded animals, who respire by the lungs, would produce no narcotic action whatever; the same as sulphureted hydrogen which, when introduced into the subcutaneous cellular tissue or directly into the veins, is absorbed by the venous system, carried into the right heart and thence into the lungs, where it is exhaled in the form of vapor; whereas, if such agents are inhaled, so that arterial blood becomes the vehicle of transport, their active properties are quickly felt. The agitation which always follows the first few inhalations of chloroform are due to the irritation of the nerves of the face and its cavities from the vapor, for if we administer chloroform through the trachea, opened for the purpose, these agitating movements are absent. The experiments made before the class were upon dogs, rabbits, rats, birds and frogs; of the *latter* the results were the following:

By Subcutaneous Injection.—1. 5 cent. cubes of a saturated solution of chloroform; anæsthesia in 5 minutes; duration 1 hour and 55 minutes.

2. 2 cent. cubes of a solution of ether at 50.1000; in 10 minutes; duration 30 minutes.

By Immersion.—1. Saturated solution of āā chloroform and water; anæsthesia in 3 minutes; duration 1 hour and 15 minutes.

2. Solution of ether at 50.1000; in 2 minutes; duration 1 hour.

But, narcotized by the vapor of chloroform, a rigidity of all the muscles, followed by death shortly after, was the result.

R. R. Good, M.D.

Vicksburg, Miss., January 12, 1869.

I notice in the Philadelphia Medical and Surgical Reporter, for January 2, 1869, a fatal case of spider bite reported. As these are rare, I will give an account of a case, which, though not fatal, was so nearly so as to render it of interest.

In April, 1865, while in camp near Greensboro, N. C., and during the conference between Gens. Johnston and Sherman, Edward H., of the Adjutant-General's office, was bitten on the shoulder by a small red spider. No considerable pain was produced at the time, but in half an hour he was pulseless and covered with a cold perspiration; in fact he was almost in a state of complete collapse. I administered whisky in ounce doses every fifteen minutes until he had taken nearly a pint. No effect of any kind was perceptible until after the last dose, when I felt the pulse rise under my fingers, and immediately afterward he exhibited every indication of intoxication. He continued to improve, but it was a week or two before the effects passed away sufficiently for him to ride on horseback. P. F. WHITEHEAD, M.D.

UNION CITY, TENN., January 19, 1869.

Thinking your numerous readers might be interested in reading the history of a remarkable child, Jackie H., I give you the following facts, as related to me to-day by the mother of the child:

Jackie is eight years of age; weighs 110 pounds; has all the beauty and symmetry of conformation of a fully developed young lady of sixteen, and has possessed this proportional symmetry since her birth. Weighed, when born, eight pounds; grew very fast until seven years old, since which time she has grown but little.

The most extraordinary thing about this remarkable child is, she has menstruated regularly every month of her life. The flow continues about twenty-four hours each term, attended by no pain, save a slight headache and sensation of fullness of the head. She is more than ordinarily sprightly for one of her age. Has none of the timidity of a young lady while in company of the opposite sex, but all the simplicity of a child.

Never having known or, I believe, read of a parallel case, I submit the above history, subject to your disposal.

Respectfully, etc., T. H. TURNER, M.D.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

"Judex Damnatur cum nocens Absolvitur."

BLEEDING AND CHANGE OF TYPE IN DISEASE. By W. O. MARKHAM, M.D., F. R. C. P. London: John Churchill & Sons.

This exceedingly able and interesting volume of 96 pages, 12mo, embraces in book-form the regular Gulstonian Lectures for 1864.

The author has reproduced these lectures in a distinct form and offered them to the profession because he "believes they prove that the present rigorous exclusion of bloodletting from medical practice is founded on error and is a misfortune to suffering humanity." For ages medical men regarded bloodletting as the sheet-anchor in nearly every disease, but at present they have swung with the pendulum of time to the opposite extreme and now look upon it as a relic of barbarism and shun it as an unmitigated evil. The explanation of this change in practice, which it has been customary to give, is that diseases have changed their type. But is this theory true? The only argument in its favor is this, viz: "The highest minds in medicine practiced bleeding in other days, and their practice must have been right. If the highest minds in medicine at this day do not practice bleeding, their practice doubtless is equally well founded." To have bleed then was proper, and not to bleed now is also proper. Both parties being correct in their practice, diseases themselves *must* have changed their type. Dr. Markham opposes this absurd proposition at great length. He does not dispose of it in a single sentence, as he might have done, by saying that nothing could have rooted up a theory, which had pervaded the profession for 2,000 years, except an unanswerable demonstration that it was fundamentally wrong. The mere fact that bloodletting was completely abandoned, after having been universally practiced for centuries gray with age, is evidence of a profound alteration in the opinions of medical men, an alteration which nothing could have induced but the waves of light which modern physiology and pathology have thrown on this question; for Dr. Markham himself agrees with Buckle that there is no well attested case on record of any theory having been abandoned simply, because it produced dangerous results.

He opens his many-sided argument against the "change of type" theory, with the remark that he has looked in vain for any proof of the assertion, that doctors left off bleeding because they began to note that their patients' bodies would no longer suffer bleeding as in former days. Bleeding, he admits, fell into disrepute at the very time that medicine was emerging from its darkest ages, and he frankly states that this change of type idea, the disrepute of wholesale bloodlettings, the departure of the antiquated humoral theory, and the life of our modern scientific medicine, all occurred at about the same general period in the history of our art. By change of type is meant, not any imaginative alteration in the essential nature of diseases themselves, but some change in the condition of the body which is the subject of diseases. Inflammations, for instance, are the same now as they have always been, but the system which they disturb is somehow changed. And this change has not been confined to *man's* body. Veterinary surgeons have said that they observed it also in the constitutions of animals. "The course of diseases amongst mankind has ever, authority assures us, at different epochs been marked by variableness and shadows of change. 'There are waves of time,' said Dr. Watson, years ago, 'through which the sthenic and asthenic characters of disease prevail in succession,'" but Dr. Watson subsequently writes to Dr. Markham, that he suspects he ought to have said "waves of *opinion*, instead of waves of *time*." The truth is, the effects of bloodletting, as far as we can now judge, have been precisely the same in all ages. The different estimates that have been placed upon it as a curative remedy, correspond to the respective states of medical knowledge when these estimates were made. For instance, Andral asserted, half a century ago, that, of all remedies in pneumonia, there was none to compare with phlebotomy, yet, in more than half of his pneumonic patients, treated by venesection, death was the result. The general practice of that day may have embraced other measures of treatment which increased the mortality to three-fourths of all the cases, but in that event, all that can be said is that venesection was a less dangerous mode of treatment than other modes then in use. At the present day, when bloodletting is hardly ever thought of, except by some antiquated member of the profession, who either does not read, or does not think, scarcely one case in ten dies from pure pneumonia.

Now, if Andral was thus murderously mistaken in his estimate of bloodletting as a therapeutic measure, what reason is there to think that Sydenham, Cullen, Gregory, Van Swieten and others of that day, were not equally misled by the force of ancient doctrines and practice and the obscure physiology of the period in which they lived? To show how worthless is the authority of great names on a question like this, let us allude to the history of the treatment of *fevers*. Rush, Armstrong, Bateman, Clutterbuck and a hundred other eminent physicians of that general period, bled every fever patient they got hold of, yet this was the very time when the change-of-type men say an asthenic tide was beginning to roll in. They bled in these cases, because they did not know the pathological difference between fever and inflammation. Yet, if they were so fundamentally wrong on this particular form of disease, what guarantee is there that they were not equally wrong in their treatment of many other diseases?

We now know that these febrile maladies run a definite course, and that if we should draw out all the drainable blood of the body, the disease would still be left in the system. When, therefore, we read in the old authors of the wonderful benefits which have attended bloodletting in fevers, we are forced to believe that the results show nothing more, than that in certain forms of fever venesection is less injurious than it is in others; for example, they might bleed in inflammatory fever and kill fewer patients than they would by bleeding in typhus fever, but the mortality would have been immensely reduced if they had not bled in either. If our ancestors erred thus shockingly in these undeniable instances, why may they not have equally erred in regard to the propriety of bleeding in pneumonia and in the other diseases, in favor of which modern phlebotomizers invoke their venerable authority?

Many aged practitioners now living, who were in the habit of bleeding thirty years ago, appeal to their personal experience in favor of this change of type, and assert that they have seen with their own eyes the facts on which their belief is founded. Personal experience in medicine, especially as recorded only by memory, is exceedingly fallacious. Where is the scientific man of medicine, it is asked, who, at sixty years of age, sees and treats diseases as he saw and treated them when under the influence of the ideas which held possession of his mind at twenty-five? Indeed, every page of medical history records the fact that it is most difficult to extract the right conclusion from the lessons of experience. We think we observe facts correctly in many instances, when really one or two essential items of the case have escaped observation and vitiated our conclusions, for the phenomena touching disease and its treatment are compound and the disturbing causes which affect its right reading are numerous and often entirely hidden, or but dimly seen. For twenty years after this change of type was said to have begun, Dr. Alison and other eminent men of the period continued to eulogize bloodletting. Is it not fair to argue that they would have observed the asthenic wave if it had, indeed, swept over them? Some of the change-of-type writers declare that we do not bear bleeding as well as our forefathers did, because we live less freely than they lived, yet John Hunter, a hundred years ago, wrote: "We live too high; we live, so to speak, above par. Living thus at the full stretch, when disease attacks us, our powers cannot be further excited, and we sink, so as to require being supported and kept up to that mode of life to which we have been accustomed."

It is as irrational to invoke a change of type to explain the abandonment of bleeding, as it would be to invoke it to explain the abandonment of the use of mercury in many diseases. Free bleeding and salivation were the common practice a century ago; they are both alike thrown aside now. The reason is simple and obvious:

physicians have learned that their employment was based on an erroneous pathology.

A marked distinction must be drawn between local and general bloodletting. When we apply leeches to an inflamed ankle, for instance, we not only relieve the dilated and engorged vessels of the part, but also take away inflamed blood; that is, blood which by stasis has become deficient in oxygen and loaded with effete material. The improvement is immediate and evident to our sense of vision. Now, suppose venesection is practiced in such a case and local abstraction of blood discarded. Let us assume that the amount of blood in the inflamed joint is to all the blood in the rest of the body as 1 is to 200. Then for every two hundred drachms drawn from the arm, only one drachm is takon from the part inflamed, for surely every part of the body suffers alike from the drainage. We might bleed the patient to death by venesection, and yet not draw as much blood from the inflamed ankle as one or two leeches would have drawn, if applied directly to the part. If general bleeding has so little influence over an external inflammation, why should it have any more influence over an internal one? Unfortunately, blood cannot be extracted directly from an internal inflamed organ, but physicians have at least learned from bleeding in external inflammations that venesection can give no direct relief to an inflamed part. Dr. Markham, then, totally discards general bloodletting as an agent capable of directly influencing any inflammation. In ascribing value to it as a remedial measure, he limits its application to cases of respiratory and cardiac obstruction. Among these he classes pneumonia, and reports a case in which immediate relief followed venesection and appeared to be due to its influence. Yet when any such observation is published, one involuntarily reverts to the statistics of bleeding in this affection. For instance, Andral bled sixty-five cases of pneumonia and lost thirty-six of them. No doubt there are cases in which venesection may afford relief (mechanically) to an overburdened heart, but diagnosis is difficult, and while we might be willing to trust such cases to the matured judgment of Dr. Markham, we would not trust them to the average practitioner.

This imperfect synopsis* has already exceeded the limits marked out for it in the Journal, and we are reluctantly compelled to abandon the intention of making a few critical remarks on the author's argument for the reintroduction of venesection in the treatment of pneumonia. S. P. B.

ON THE SIGNS AND DISEASES OF PREGNANCY. By THOMAS HAWKES TANNER, M.D., F.L.S., etc. First American from the second and enlarged English edition. One vol. 8vo., about 500 pp. Philadelphia: H. C. Lea, 1868.

The first monograph on the signs, symptoms and diseases of pregnancy in the English language appeared less than twenty years ago. The earliest edition we have seen is of 1856. While no subject connected with the science of obstetrics is of higher interest and importance, yet, silence undisturbed has prevailed in this department since the days of Montgomery's great work, just alluded to, and has been but lately broken by the publication of the work before us.

The name of Tanner is familiar to us as a fertile and accomplished writer. All his productions are characterized by a high order of excellence, but in none are his merits as an author more strikingly developed than in the present volume. He possesses, in a remarkable degree, the faculty of grasping all the salient points of a difficult and complicated subject and of presenting the whole in a clear, concise and forcible manner. His style is easy and elegant, and we are attracted by the classic purity of his English, a merit, which, in our days of indiscriminate book-making, is as praiseworthy as it is rare.

---

*By request of the editor, hastily written just before going to press.

The present treatise, which, in many respects, is equal to that of Montgomery, is in others far superior. It is a comprehensive and accurate embodiment of the best and latest views on the numerous subjects connected with pregnancy, its signs and complications. It is divided into twelve chapters, viz:

Chapter I. General Observations on the State of Pregnancy. II. Signs and Symptoms of Pregnancy. III. The Diseases which Simulate Pregnancy. IV. The Duration of Pregnancy. V. The Premature Expulsion of the Fœtus. VI. The Examination of Substances Expelled from the Uterus, &c. VII. Extra-Uterine Gestation. VIII. Superfœtation—Missed Labor. IX. The Diseases which may coëxist in Pregnancy and their Reciprocal Influence. X. The Sympathetic Disorders of Pregnancy. XI. The Diseases of Uterine and Generative Organs. XII. The Displacements of the Gravid Uterus.

We are unable to notice all of these, but every one is worthy of perusal. We are pleased to find the author has discarded the arbitrary and pedantic classifications of the signs of pregnancy, which disfigures some of our best works on obstetrics. But Dr. T. is perhaps in error when he says: "Even if a perfect classification could be laid down, it seems to me that it would be useless." A simple and philosophical classification is not only convenient for the purpose of description, but assists both in acquiring and attaining knowledge. To arrange the signs of pregnancy in the order of sequence in which they arise, is both rational and convenient, and so far as the author has adopted any method of classification, this appears to have been the rule observed. Among the signs of pregnancy alluded to, is the violet color of the vagina; in his table of signs the author dates its first appearance as late as the end of the fourth month, but in the text he places it somewhat earlier, for he says: "It is seldom clearly seen before the end of the third month."

He gives the opinion of Kluge, who found it as early as the fourth week. We have been able to confirm the correctness of this, by numerous observations of our own.

Great reliance is placed upon the presence of milk in the breasts, as an early sign. "So early as the ninth or tenth week has this sign held good; and, as far as can be known, it never led me into error. A single drop is sufficient, provided it contains the characteristic milk globules, with large oil particles and colostrum corpuscles." A large number of thermometric observations on pregnant women have been made by Dr. Tanner. He sums up his experience on this subject in this statement, that data obtained by the employment of the thermometer have no significance in the diagnosis of pregnancy.

Involution of the uterus is considered by the author to be accomplished by the transformation of the uterine muscular fibres into molecular fat. This view is entertained by Retzius and Kölliker*, and is taught in our text books on obstetrics, but is by no means an admitted fact. The correctness of Tyler Smith's theory, that the ovaries are the special organs which excite the uterus to parturition, is denied by our author.

He brings up a powerful array of facts against Dr. Smith's favorite doctrine, but, while damaging the ovarian theory, Dr. Tanner offers no other explanation as a substitute, except a surmise that the cause of parturition is to be found in the maturity of the ovum, or in the placenta, which, having attained its full evolution as an organ of temporary function, begins to degenerate, while its attachment to the uterus loosens. This latter view has been advocated by Dr. Carpenter and Sir James Y. Simpson, but we confess it appears to us more objectionable than the theory of Tyler Smith.

---

*By Siegmund and Kilian also.—Ed.

On referring to the length of time consumed in completing the process of involution, the author gives us to understand that, unless retarded by inflammation, or other causes, this result is usually attained at the end of the second month. This subject has been carefully studied by Dr. Wieland, who expresses a different opinion. He says: "Finally, in women whom I examined three months after delivery, the original condition, as respects situation, form, direction, consistency and mobility of the uterus seemed to be restored, the size only appearing to be somewhat greater. In no case had it resumed entirely its primitive condition either by the sixth week or second month."

The chapters devoted to diseases which simulate pregnancy and to its duration are of great practical interest. The last chapter is devoted to the consideration of displacements of the pregnant uterus and the subject of retroversion is admirably discussed.

It would be unreasonable to expect a work of this magnitude and embracing so many difficult and unsettled subjects to be entirely without fault; but they are few and the most important have been alluded to.

Throughout the whole book we are impressed with the author's fairness and candor and the impartiality with which he sets forth subjects still *sub judice.* The illustrations are numerous and well executed and the publishers have performed their part in excellent style.

Among the disorders of pregnancy, we find a notice of vaginal thrombosis; this is a rare and sometimes fatal complication. The literature on the subject is quite scanty, but the best accounts of it have been given by Laborie, Deneux and Blot and their names are freely quoted in connection with vaginal thrombosis in the last (Tarnier's) edition of Cazeaux.

MISCELLANEOUS.

"Non Omnes Eadem Mirantur Ament Que."

DR. CHARLES CALDWELL—AN ANALYSIS OF HIS LIFE. Charles Caldwell was born in Orange (now Caswell) county, in the province of North Carolina, on the 14th of May, 1772. He was of pure Hibernian descent. His father belonged to a family which had been domiciled for many generations in England and the north of Ireland, but which was traceable, under the name of Colville, to Normandy in France. His mother was descended from Col. Murray, famous for his martial exploits during the memorable siege of Londonderry. His parents destined him for the ministry of the Presbyterian Church, of which the father was a ruling elder, and to this end they purposed to give him a liberal education. Despite all the exertions his father could make, no school could be procured for him, until he was far advanced in his ninth year. At this period, his sole attainment was a knowledge of the alphabet; but by the close of his fourteenth year, he had mastered all the scholastic learning which the best Institutions of his native State then afforded. To avoid interruption from the domestic avocations of the family, he assisted, during one of the earliest school vacations, in erecting a cabin for himself adjacent to that of his father's. This was his study and lodging room, and here he bent himself to his books, often from dark till near daylight. His chief aid was in a gentleman named Harriss, who subsequently filled a chair in the college at Princeton, under whom he began the study of the classics, early in his twelfth year. His parents died at the beginning of his fifteenth year. He now took charge of the Snow Creek Seminary; his success here was decided. He continued here two years. He was then called to a similar establishment in Iredell county, with very liberal terms and a wealthy constituency. Pupils flocked to the *Centre* Institute from every quarter. In 1787, appeared "An Essay on the Causes of the Variety of Complexion and Figure of the Human Species," by Dr. S. S. Smith, of Princeton, which he reviewed with such force, as to materially damage it as a work of authority. He conducted the affairs of Centre Institute for the space of two years, and left it the first Institute in the State. He now selected a profession and repaired at once to Salisbury and placed himself under the tuition of Dr. Harriss; he remained here a year and a half. Here he first saw Washington, and was, for several days, a good deal about his person. The President was then making the tour of the Southern portion of the Union, and Caldwell, being an officer in a volunteer cavalry corps, was selected to command the escort which received him on the borders of the State, and accompanied him through it. His knowledge, geographical and historical, enabled him to acquit himself so well, that Washington *publicly* thanked him therefor. He now sought the Medical Department of the University of Pennsylvania, arriving in Philadelphia a few days before the beginning of the session of 1792–3. He was in his twenty-first year. His scholarship, technically so called, was thorough and accurate. His physique was most majestic. The faculty of the medical school was composed of five members, namely: Shippen, Wistar, Kuhn, Rush, Hutchinson and Griffith. Dr. Wistar was adjunct to Dr. Shippen.

He penned a laudatory critique, with additional arguments, of Dr. Rush's introductory, showing that the native of America is equal, and perhaps superior, to the native of Europe; this he sent to the Aurora newspaper, under the signature of "Medical Student." He criticised Rush's lectures once or twice a week, and Rush occasionally noticed the most elaborate, without reference to the supposed source.

In 1793, during the terrible epidemic of yellow fever, he alone, of all the students, in Philadelphia, remained, and was placed in charge of a hospital at Bush Hill, by Dr. Rush. It was not uncommon for Caldwell to cast himself at the feet or by the bed-side of a patient for a little sleep, and on waking to find the patient a corpse or himself deluged with the matter of "black vomit." He renounced his belief in the contagiousness of yellow fever. He was, indeed, among the first to declare for the non-contagiousness of the disease, in opposition to Rush and the followers of the latter, with whom he carried on a long controversy on the subject. He prepared a paper for the Philadelphia Medical Society on the subject of yellow fever, and took an active and distinguished part in the discussion of the same, when only twenty-two years of age. At this discussion was present a young man, who removed to Lexington, Kentucky, became afterward a member of the Board of Trustees of Transylvania University, and, twenty-five years after, urged his colleagues to invite Dr. Caldwell to aid in organizing its medical department. Meantime, he continued his communications with the public through the press, on the cause and prevention of yellow fever, and in one of them is found the first public recommendation of the introduction of the Schuylkill water into Philadelphia.

At the end of this (the second) session, Caldwell passed an examination in every way creditable and honorable, but declined applying for a degree. At the desire of Dr. Rush, he undertook a translation of "Blumenbach's Physiology," from the original Latin. At the end of six months, the translation was finished. Just at this time, the troubles in Western Pennsylvania, known as the "Whisky Rebellion," caused the President to call out fifteen thousand troops from Virginia, Pennsylvania and New Jersey. Washington gave him the appointment of regimental surgeon in this expedition. This gave him the acquaintance of many of the most distinguished citizens of the day. Gen. Hamilton gave him his choice between a commission in the army and a secretaryship of legation; the French minister offered him a commission in the military service of France; while another party urged him to make a voyage to Canton in a merchant vessel as super-cargo and surgeon; a post highly respectable and at that time very lucrative. The latter offer he declined, but secured it for a young medical friend; the two former, but for the influence of a female friend, would have found him in the history of diplomacy or war, rather than in that of medicine. Declining all these offers, he resumed his attendance on the lectures. In 1795, his translation of Blumenbach left the press. He added to the original a few notes and an appendix.

At the end of the session of 1796, he requested another examination in presence of the entire faculty, closing with Dr. Wistar, whose examination was conducted in the Latin language. It was the rule at that day for the candidate to print his thesis and furnish a copy to each member of the faculty and of the board of trustees, in whose presence it had to be publicly defended. The thesis composed by Caldwell embraced the subjects of "Hydrocephalus Internus, Cynanche Trachealis and Cholera Infantum," three affections concerning which not much had then been written. After graduating, he decided to remain in Philadelphia; his success was flattering. In 1797, yellow fever again prevailed as an epidemic. The papers teemed with the most violent abuse of Rush. Caldwell defended him over an assumed name. He became a member of the Academy of Medicine; delivered the semi-annual address, taking as a theme the laws of epidemic diseases. Dr. Haygarth, of Bath, England, made a sharp review of it in a published letter to Dr. Percival. Caldwell replied to him with such severity as to send him complaining through every coterie in Bath to the last hour of his life. He now engaged also in private instruction. Among his pupils were a large number from the West and South; many of whom rose afterward to great eminence; some as his colleagues in Western schools, others in separate Institutions, or as private practitioners.

In 1803, he instituted the first clinical lecture in the Philadelphia Alms House, (now Blockley Hospital), and continued them for several years. In 1810, he formally assembled the first class to listen to him. In 1816, he was appointed to the professorship of Geology and Natural History in the "Faculty of Physical Sciences," created in the University, and delivered four annual courses of lectures. His reputation led to frequent calls on him for addresses of a scientific or literary character. Perhaps no one, during his residence in Philadelphia, appeared so often before the public, and no one was more uniformly attractive and successful.

His authorship, dating from the translation of Blumenbach's Physiology, in 1795, was continued almost without intermission. In 1801, appeared an address delivered before the Philadelphia Medical Society on *The Analogies between Yellow Fever and the True Plague*. He at first thought the views original, but afterwards found them anticipated by a French physician, who wrote in 1720. In this year, 1801, he published a volume entitled *Medical and Physical Memoirs*, "Facts and Observations relative to the origin and nature of Yellow Fever," "Winter Retreat of Swallows," and on "Goitre." In 1802, appeared his reply to Dr. Haygarth. In 1805, "Thoughts on a Health Establishment in the City of Philadelphia," and translated Senac's *Treatise on Fevers*, from the Latin. In 1805–6, he edited two volumes of *Select Medical Theses*, with an appendix of results of some experiments on the vitality of the blood.

This added much to his reputation, both at home and abroad. Darwin, Currie and Beddoes, of Britain, by their own desire, became his correspondents. Rush was a convert. In 1807, he translated *Alibert on Intermittents*, from the French. In this year, he wrote largely in opposition to *Quarantines*, mastering the Italian language, to get the best literature on the subject. As a member of the Board of Health, he secured a modification in the rigor of the quarantine laws. In 1811, he published a translation of Dessault's work on *Fractures*. In 1814, he succeeded Nicholas Biddle in the editorship of the *Portfolio*, a literary monthly, originally conducted by Joseph Dennis. In 1815, he furnished the biographies in *Delaplaine's Repository*. In the year following, at the request of Dr. Chapman, he prepared copious notes of *Cullen's First Lines of the Practice of Physic*. He composed the outline of Chapman's first course of lectures on eruptive diseases, and furnished him with his own manuscript lectures on general pathology. In 1819, appeared his *Life of General Greene*. He successfully set forth reasons for the separation of the Institutes of Medicine and Theory and Practice into distinct chairs, and they were adopted. He criticised severely, Rush's doctrine of the *unity of diseases*, his hypothesis of *life*, and his theory that *fever is a convulsion of the arterial system*. He declined several invitations to professorships in Baltimore and New York, and turned his attention to the Mississippi Valley, whence many urgent appeals were made to him. In August, 1819, he received an official letter of appointment to the chair of the Institutes of Medicine in the Medical Department of Transylvania University at Lexington, Ky. The chair having been created expressly for him, was at once accepted. In five weeks from this time, he had closed up the accumulated business of twenty-five years, and despite the protestations, the entreaties, even the tears of friends, was on his way to his new home. A faculty had been installed in 1809, but no lectures were delivered. A second was organized in 1815, with similar result. A third was organized in 1817, and instruction given to a class of twenty pupils; the late Dr. Drake was a member of this faculty. The fourth was the one to which Dr. Caldwell was invited and of which he was to have the chief control. He took the chair of Materia Medica, in addition to that of the Institutes of Medicine. His colleagues were Dudley, in Anatomy and Surgery; Brown, in Practical Medicine; Dr. Richardson, in Obstetrics, and Dr. Blythe, in Chemistry. In 1820, he made the tour of Kentucky; went south to New Orleans; passed round by sea to Philadelphia and visited Virginia, and received fine contributions of money in aid of the School, while the matriculants of the next session doubled those of the first.

In 1821, he spent eight months in Europe, taking five thousand dollars given by the Legislature, and six thousand by Lexington, for the purchase of books, etc., for the College, paying his own expenses. The time of his visit was opportune. Whilst in Paris, he made the acquaintance of Gall and Spurzheim.

On his return, students came from all the States, South and West, and in 1823 a class of two hundred assembled before him. In 1828, after steady increase, the class was a little short of three hundred. "The West was then a literal wild." Lexington had six thousand inhabitants. He remained in Lexington eighteen years. While living there, he wrote many publications; among the number, a volume of Essays, in 1821; Outlines of a Course of Lectures on the Institutes of Medicine, in 1823; Elements of Phrenology, and the Defense of the Medical Profession against the Charge of Irreligion and Infidelity, in 1824; Probable Destiny of New Orleans in relation to Health, and Analysis of Fever, in 1825; Medical and Physical Memoirs, in 1826; Memoirs of Dr. Holley, in 1828; New Views of Penitentiary Discipline, Advantage of a National University, Structure and Dependencies of the Science of Medicine, and Change of Matter and their Causes, in 1829. Malaria, The Study of the Greek and Latin Languages, Original Unity of the Human Race, and Febrile Miasma, in 1830; Intemperance, Washington, The Moral Influence of Railroads, and the Means of Preserving Health in Hot Climates, in 1832; Physical Education, Gambling, Quarantine and other Sanitary Systems, Optimism and Phrenology Vindicated, in 1834; Popular and Liberal Education, and Hygiene, in 1836, etc. The Essay on Penitentiary Discipline, and that on Physical Education, were republished in Great Britain and translated and printed on the continent. The dissertation on Quarantine won the Boylston prize, for 1834, although the committee of award, when they began its perusal held views in opposition to those of the author. That on Febrile Miasma won the same prize in 1830. In 1828, chiefly through his influence, the Transylvania Journal of Medicine and the Associate Sciences, was established, to which he contributed an article in every number. He reviewed Jackson's Principles of Medicine, so sharply, as to cause the author of the "Principles" to endeavor to buy up and cancel the whole edition of that book. Besides these, he prepared scores of other treatises; on Phrenology, etc.

In 1837, he was invited to Louisville by the Hon. Jas. Guthrie and the late Judge Rowan to become the founder and builder of the Medical School here. Having addressed a mass meeting of the citizens in a speech of two hours, resolutions, requesting the Council to grant twenty thousand dollars for the purchase of a library, museum, etc., were passed. The Council granted the bill. The School opened with eighty pupils. Caldwell was joined with three of his colleagues: Cook, Short and Yandell; by Cobb of Cincinnati, Miller of Louisville, Flint of Boston, and subsequently by Drake and Gross of Cincinnati. Each succeeding year the class augmented, until in 1849, it rose to four hundred and six, the largest that had ever been assembled in the Mississippi Valley, and larger than any that has since been assembled.

Early in the latter year, Caldwell formed a resolution to retire from the toils of public and official life, and this resolution he made known to some of the trustees, by whom it was approved. He named March, 1850, as the period of his retirement, but the board anticipated him, by declaring his chair vacant in 1849. For this arbitrary and extraordinary proceeding, no motive was assigned, save the rather indefinite one, that "people thought him too old." Full details of all this unpleasant and familiar business may be found in his autobiography. Caldwell made no concealment of his indignation at the conduct of the trustees, etc. The trustees joined to their dismissal the offer of an honorary or *emeritus* professorship, which he rejected in words not more proud than they were just and true: "That they had nothing to confer which to him would be honorary; that not only was he the founder and constructor of his own honors, but that he was virtually the author of all the academical honors possessed by them." In 1850, he was, by special invitation, at the annual meeting of the American Medical Association, held in Cincinnati, and was requested by that body to draw up a report on mesmerism, for the next annual meeting in Charleston, S. C. His health would not permit him to make the journey. After his decease, the report was found among his papers, finished and in perfect order. Early in May, 1853, he was seized with erysipelas in one of his lower extremities. On the 9th day of June, 1853, the strong and noble heart was stilled in death.

As a teacher, Caldwell was at all times popular and ranked among the most eminent. Thirty years of uninterrupted service in schools of his own creation may very well attest his attractiveness.

As a public lecturer and orator, he possessed unusual personal advantages. There have been few men of a more distinguished and commanding appearance. He was much above the common hight, well formed and, to the last, perfectly erect, with a large and finely developed head and a countenance full of dignity, wonderfully intelligent, animated and intrepid; in mid-life he had that amount of fullness indicative of health and vigorous nutrition; in old age he was somewhat thiner, but still retained an air of singular strength, endurance and hardiness. At all periods, his form, expression and movement would have attracted attention in any assemblage of men in the world.

All this wealth of person was hightened by a refined and admirable taste, and by a manner at once polished, elegant, frank and full of noble and knightly courtesy.

W. T. O.

CHANGE OF TYPE IN DISEASE—LETTER FROM SIR THOMAS WATSON.—16 *Henrietta Street, Cavendish Square, April 19th. My Dear Dr. Markham:* Since I listened to your Gulstonian Lectures on Venesection, and especially since you told me of your purpose to publish them in a book, I have felt it to be my bounden duty, as a former teacher of medicine, to reëxamine and consider afresh the collateral question discussed in them, respecting the so-called "change of type" in diseases.

By that phrase I mean some change in the human body, existing through considerable spaces or cycles of time, which renders it varyingly affected by the causes and by the remedies of disease, and especially of febrile and inflammatory diseases; so that diseases nominally the same shall during one period express themselves in the body more strongly, and during another succeeding period more feebly, and shall accordingly require and bear, now more and now less, of what is called energetic, active, depleting, or lowering treatment.

That this kind of difference, arising from some obscure outward influence—atmospheric, telluric, magnetic, social, or what not—may really be seen in different epidemics of the same disease, will be admitted, I suppose, by all men who have had opportunities of noticing the phenomena of epidemic distempers. But I am obliged to confess that the result of my later reading and inquiries, and of careful reflection on the matter, is that my previous belief in the soundness of the doctrine of a general and more abiding variation of type, in the sense now explained, has been shaken.

In making this confession I desire to protest against the uncharitable imputation (not made by you, nor especially against myself, but thrown out somewhere, as I gather from Dr. Stokes' address before the British Medical Association) against those who hold or have held the controverted doctrine—the imputation that it was artfully invented to conceal former errors of practice in regard to bloodletting.

Indeed, though I believe that great errors were committed in past years by excess of bleeding, as at the present time by its utter neglect, my own conscience is not uneasy on that score, for I have never been a lavish or a frequent bleeder. I taught, no doubt, because I believed in them, the lessons which I had received from my predecessors, and I endeavored to explain to my class how it was that my practice was apparently so little in accordance with my public teaching. In the first edition of my lectures I say:

"Those among you who happen to be attending the wards of the Middlesex Hospital may wonder indeed, after hearing my estimate of the power of bloodletting over inflammation, that I seldom prescribe venesection there. The truth is, not that I undervalue the remedy, but that the time for its employment has generally gone by. The poor are unwilling to relinquish the occupations by which they subsist; they struggle on as long as they can, and resort to hospitals only when they are compelled to do so by the exigency of their malady. Many of them, laboring under inflammation, have been freely bled before admission. It is commonly too late, when they present themselves, to expect that the course of the disease can be so arrested. The first effect of bloodletting is to deplete and relieve the laboring circulation. But when it is again and again repeated, it becomes (as the French say) *spoliative*; it robs the vital fluid of its nutrient and plastic materials, etc., etc."—(Vol. i, p. 217.

A careful survey of the facts and arguments adduced on both sides of late, respecting the alleged change of type, compels me, I say, to suspect that my previous opinion was a mistaken one. In that survey it was needful for me, looking back, to trace, if I could, what were the sources of that opinion; and the retrospect has shown me, I think, the main causes to which it owed its origin and strength.

First, then, I repeat, I had faith in the judgment of the practicers and teachers of medicine at whose feet I had sat as a learner, that the old fashion of free bleeding in certain inflammatory and other febrile diseases was a right practice.

But as the field of actual observation and experience enlarged itself before me, I soon found that those symptoms and conditions which I had been taught to regard as the warrant for free bloodletting, very rarely presented themselves; and this fact gave birth to a notion, vague enough at first, that the inhabitants of our great and crowded metropolis, and especially the class of persons who form the bulk of the in-patients in our London hospitals, among whom my experience then chiefly lay, had somehow become less likely to receive benefit from, and less able to sustain, the active use of what are spoken of as lowering remedies.

About the same time came the teachings of the desolating visitation of influenza (the first that I had seen) in 1833, the year after the first outbreak of cholera in this country.

The cautions enforced by the influenza, as well as its name, outlived the occasion. The abstinence from depressing measures, inculcated by that depressing disorder, was continued to cognate and extended to other disorders, and this by general consent; and thus men learned the safety and the wisdom of a less heroic treatment of disease in general, and thus the doctrine now called change of type got plausible support; but I believe that the main ground for that doctrine was furnished by the differing behavior under medical treatment of different epidemics of fevers.

My dear friend, Dr. Latham, one of the most conscientious, careful and unprejudiced students of disease that I have ever known, had collected (after about ten years' observation as one of the physicians to St. Bartholomew's Hospital) materials for, and was on the point of publishing, a book on fever. He had chosen with care his clinical assistants; he had kept regularly and had periodically digested his case books and their records; and he found that he had bled from the arm one in every four of his fever patients, and had applied leeches to nearly all of them; and that mortality had been seven in the hundred.

But not long after the first visitation of cholera, in 1832, so great a change occurred among his fever patients that he did not dare to bring out his prepared book. *Now*, he could not venture to draw blood from any of his fever patients. Their condition urgently demanded support, and the mortality among them was doubled. So numerous were the deaths that it was impossible to make any regular inspection of bodies as long as this state of things lasted.

This looked very like a change of type.

We know now—but few or none of us knew then—that the diseases with which Dr. Latham had been dealing were, not varying types of the same malady, but two diseases differing in species; the first having been enteric fever, the second typhus.

In this way, and to this extent, I readily admit that modern improvements in diagnosis have modified, on grounds of reason, our practice.

I remember, also, to have read Dr. Caleb Williams' address to the British Medical Association on the Change of Type in Disease, in which he adduced his own experience and convictions on that topic, and gave some account of Autenreith's work, to the same effect.

Again, and more lately, I remarked (and the fact tended to strengthen my faith) a great consensus of opinion among medical writers upon the alleged change of type who had lived and practiced in the period when the change was supposed to have manifested itself—while it was chiefly questioned or denied by younger men, whose personal experience had not included that period.

I trust that I may now have convinced you that the opinion combated by you (which I should be ashamed if I had not candor or courage enough to renounce, or at any rate to doubt, upon good cause shown) was not formed at random, nor without supposed foundation for it, still less adopted as a miserable cover or excuse for former bad practice.

I suspect that in a sentence of mine which has obtained an unhappy prominence in this controversy, I ought to have spoken of successive "waves" of "opinion" rather than of "time." Believe me, very truly yours,

—[*Gulstonian Lectures.* THOMAS WATSON.

A NEW English invention is an apparatus for employing electricity, in connection with a thermometer, to regulate the temperature of a room. An ordinary mercurial thermometer is provided with a platinum wire inserted in the glass bulb, so as to be in connection with the mercury. Another wire, capable of elevation or depression, is placed at the other end of the thermometer. These two wires connect with the two poles of a battery, and forming part of the circuit is an electro-magnet, whose armature controls the opening or closing of a valve regulating the admission of hot air. If it is desirable that the temperature of the room should not rise above 60° Fahr., the point of the movable platinum wire is brought to that number on the thermometer. When the mercury registers sixty degrees, the circuit is closed, and the armature of the magnet closes the hot-air valve, until the temperature becomes reduced, when the valve is again opened. Thus a nearly even temperature may be maintained—a very desirable object in hot-houses and dwellings.—[*Ex.*

ABORTION AS A CAUSE OF INSANITY.—The Superintendent of the Michigan Insane Asylum, in his report just published, says: "Mental derangement has generally occurred as a result of local injury, and the serious impairment of general health, directly traceable to the criminal act. In a few cases it has operated as a moral cause; as, for instance, when the unfortunate sufferer has borne a child which has been permitted to remain with her only long enough to show the unhappy mother the priceless value of the gift she had previously refused to accept. In these cases the immediate cause of the insanity is remorse. Unless this most disastrous practice be speedily arrested by the efforts now being used to suppress it, and by more stringent laws, severely punishing all parties implicated, it will materially increase the number of female patients annually presented for treatment.—[*N. Y. Med. Journal.*

LOCAL TREATMENT OF SOFT CHANCRE.—The application of carbolic acid causes the rapid destruction of the ulcerating surface, with decomposition of the poison and without any considerable degree of pain. The surface of the sore is turned white by the acid; there being a thin, dry, yellow scab, which separates in about two or three days. The application should be repeated to the third or fourth time, when it may be found that the sore has healed under the scab. The healing of the sore is generally completed in an average of ten to fourteen days.—[*British Med. Jour.*

PROLAPSUS ANI.—Dr. Schartz, in Hufeland's Journal, recommends for this affliction a solution of the ext. of nux vomica of the strength of one or two grains to the ounce of distilled water. Of this solution he gives six to ten drops every four hours. This is the dose for very small children; to larger children fifteen drops at the same intervals. Children at the breast, two or three drops.—[*Ex.*

DR. B. P. STAATS, who has considerable experience in the treatment ot *delirium tremens*, stated before the Medical Society of the State of New York, that he had never seen a case in a negro, and asks if it occurs.

[There are few physicians of the Southern States who have not seen such cases.—ED. R. & L. M. J.]

VERATRUM VIRIDE IN CONSTIPATION.—In an obstinate case of habitual constipation, Dr. T. C. Miller (Journal of Mater. Med.) gave three drops, five times a day, of the tr. of veratrum viride, and in the course of a two weeks effected an entire recovery.

DEATH FROM CHLOROFORM.—Fortunately, we may regard death from chloroform as a very rare occurence, and one becoming more rare every year. Reckoning that, during my fifteen years of clinical teaching and the two last years of my student life, I [Dr. Billroth, of Vienna,] have been present at two administrations of chloroform per diem, (which is a low and certainly not an exaggerated estimate), I shall have witnessed twelve thousand five hundred cases of narcosis, and this is the first fatal one I ever saw. We must regard chloroformization as an operation by means of a chemical agent, as with arsenic, chloride of zinc, etc., and compare its results with those of other minor operations. I am convinced that the mortality statistics after the application of leeches, blistering, cupping and bleeding (through erysipelas, hospital gangrene, tetanus, etc.,) is greater than one in twelve thousand five hundred; but no one, on that account, has thought of prohibiting these means, and the use of chloroform can not be prohibited because of these seldom occurring fatal cases. The psychical impression which such a death produces is, by its very suddenness, a very powerful one, and exerts especial influence upon those who have not been accustomed to see men die before their eyes. Unfortunately, we have in surgery only too often occasion to be convinced of the incompleteness and the impotence of our present amount of knowledge. A mere cut of the finger, especially if this opens into a joint or the sheath of a tendon, may give rise to phlegmonous inflammation, which during the last twenty years has caused far more deaths than chloroform. Urged by the patient's vanity, we remove a small tumor from a man's scalp, and he dies of erysipelas, or another dies from tetanus brought on by some slight injury—perhaps only the prick of a thorn; and, as regards the cause and action of these circumstances, we are as ignorant as we are regarding death from chloroform.—[*Ex.*

REMOVAL OF FRECKLES.—D. Savignac employs sucessfully a lotion of Vichy water for two or three minutes night and morning. After the washing, the skin is allowed to dry without wiping it.—[*Ex.*

MEDICAL NEWS.

"Nulla Dies, Sine Linea."

AMERICAN MEDICAL ASSOCIATION—The next meeting of this Association will take place in New Orleans, La., on the first Tuesday in May 1869, this being the 4th of that month. New Orleans, with the characteristic hospitality of her people, will unite with her warm-hearted physicians to render to all who will attend a genial and generous welcome. The only cause for fear is, that feasting and hospitality may interfere with the severe labors and duties devolving upon the members of the Association. An interesting feature in regard to the meeting is, that it will be the first held at the South, since the termination of the late war. With a most extensive and immediate personal acquaintance with a host of Southern physicians, the writer feels that he expresses the sentiments of this large class, when he invites the members of the profession throughout the country to be present, and when he assures all who will come that the warmest and kindliest reception awaits them.

UNIVERSITY OF VIRGINIA.—Prof. J. F. Harrison proposes to give a private course of instruction (extending from July 10th to September 25th) on Obstetrics and Medical Jurisprudence. The charge for this course is $25 00. Prof. Harrison is well known to the writer, and it is due to him to say, that his work will be faithfully and efficiently performed.

THE KENTUCKY STATE MEDICAL SOCIETY.—The next meeting of this Society will take place at Lexington, Ky., on Tuesday the 6th of April, 1869. This will be a large and most interesting meeting and all are invited to be present.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION (meeting in May next at New Orleans) who desire to go and return by steamer* will find it to their interest to address Dr. J. F. Hibberd, Richmond, Indiana.

---

*The railroads will carry delegates for half-fare.

EDITORIAL.

"Nullius Addictus Jurare in Verba Magistri.—Hor."

A Proposition to Medical Societies.—In the medical literature of the present period, there is perhaps nothing possessing actual merit, which attracts so little attention, as the so-called "Transactions" of Societies. In these volumes or pamphlets, there is often much to repay not only careful perusal, but patient study. When, however, all that is good has been faithfully analyzed, these portions bear so small a proportion to the great bulk presented, that experience, expensively gained, guards one from future sacrifices of valuable time. There is so much of foolish verbiage; so much space devoted to matters of only local interest; so many valuable pages occupied with details of a simply executive or administrative nature; such extended reports of common pecuniary transactions; such wearying and profitless dialogues; such petty exhibitions of polemical spirit, by professional competitors unknown to fame; such angry controversies or profitless statements in regard to matters of superficial observation, indefensible opinions or unrecorded experience; so little, comparatively, of scientific analysis and concise exposition, that physicians are accustomed now to look at the exterior only of these volumes of "Transactions" and to consign them to that literary tomb of the Capulets, the obscure corner of the professional library.

Medical journals occasionally contain the transactions of Medical Societies, but unless the papers thus presented are prepared with extreme care, it is rare indeed that they command casual attention or even a passing notice. The editors of journals are not infrequently besieged with applications to publish such matter, but the truth is, that if such requests are granted, the material presented is calculated to seriously impair or damage the character of their work. Those immediately concerned are intensely interested and, naturally magnifying the importance of all contributions emanating from themselves, are convinced that such material must possess extreme interest to the profession at large. The fact is, that those residing in different States, or even in different counties, often regard these contributions as impositions; justly concluding, that they have been thus imposed upon by hungry editors, who, to obtain the support of those interested in making a public appearance, are conspicuously willing, or at least culpably consent, to give publication to these insipid, weak and heterogeneous transactions. Every reader must recollect having often entertained such convictions, when finding or reading in journals received, the proceedings of societies unknown to him; while he has been deeply impressed and interested on reading the published proceedings of Societies of which he happens to be a member. Who in the East read the transactions of Western Societies, or, who in the North care to receive the proceedings of Southern Societies; who in the South expend time in even cursorily examining the voluminous debates of Northern bodies, or who in the West seek instruction in the proceedings of those residing in different and distant sections? There is no political reason for this condition, for it is to the glory of medicine and its votaries, that medical science is catholic; with rare exceptions, its pages are unstained by partisan vituperation, and its record has generally been unpolluted by the pen of the demagogue. The explanation of the apparent anomaly is simple. Men, as a rule, value the opinions of those who are prominent; or of those locally interesting to them; or of those who, if unknown, offer novel or suggestive views concisely and comprehensively presented. It is rare, when analyzed with reference to these self-evident facts, that Transactions are interesting to any others than those immediately or personally represented in their pages; while it is unquestionably true, that transactions do often contain papers and opinions of great value; that they would become still more valuable, if they were compiled with care and conciseness, and if the members of such bodies were satisfied that their carefully prepared statements (oral or written) would be read by the working and thinking men of the profession.

Being fully impressed with these facts, and being desirous of presenting all that is of current and practical interest to the medical public, the editor wishes to make the following proposition to Medical Societies; that their Transactions, after being carefully analyzed and concisely prepared by proper officers, and after being duly accepted at subsequent meetings, be transmitted for publication. As the departments of this Journal are already very numerous, and as a new department for such transactions can only be made at an expense at present impracticable, (on account of the large return now made for the price paid,) it is proposed, that each society pays the expense of publishing its transactions, and that these be embodied as supplements in consecutive numbers of the Journal. It may be asked, in what way would societies profit by this arrangement. The reply is important and worthy, the writer believes, of careful attention. The composition (or type-setting) can be done at twenty-five per cent. less than the price otherwise charged; the printing (or press-work) would cost fully fifty per cent. less; the binding would be equally reduced in cost; the number of readers would be large and represented by active workers and appreciative thinkers; and the transactions would obtain a circulation which, if secured by the otherwise necessary payment of postage, would cost a Society fully twenty-five dollars per month, or three hundred dollars per year. Extra copies of these proceedings, desired for society-distribution, could be obtained at a small cost.

That the Journal would thus require additional trouble and labor in its management is unquestionable, but the editor is willing to assume any increase of responsibility or care, if, by so doing, he can secure for the work that consecutive and progressive improvement which it is always his wish to institute; which, even if this proposition is not accepted, *will* be instituted, as soon as the support extended to the Journal ıenders practicable the necessary outlay. As in the past eight months, the subscription list has been almost doubled and the supporters of the work are actively interesting themselves in extending its circulation, these and others improvements contemplated will, it is expected, be certainly introduced. When five dollars in gold were, before the late war, paid for a monthly medical journal, the standard size of such works was ninety-six pages per month. For the same amount in the depreciated currency of the country, the supporters of this Journal are receiving from one hundred and twelve to one hundred and twenty pages per month. To state this gain more clearly, subscribers are now receiving the equivalent of over fourteen journals of ninty-six pages (with costly engravings) for five dollars in currency, where they formerly paid, for twelve such journals, five dollars in gold. The editor states these facts, because he desires to have them known; and he pledges himself, with increased support, to render to the patrons of the journal, a still better return for the amount annually contributed by each.

ADVERTISEMENTS OF PHYSICIANS.—It is a fact familiar to all that the code of ethics, by which physicians assert that they are governed, is constantly violated, in regard to advertisements. Some advertise continually in newspapers; some in journals; some advertise themselves as specialists both in newspapers and journals; some are so lost to all sense of propriety and of justice to their brethren and to themselves as to advertise a desire to practice *by contract in families, at a fixed rate, by the year.*

If the code is to be observed by any, it should be observed by all, and all violators of its text or spirit should be tried by proper tribunals and punished. If the code is not to be observed, if practically its provisions are to connived at or disregarded, it is time that this portion of it should be expunged. If such advertising is to bring revenue and reputation, and if it is to be tolerated any longer, it is only fair that all should have equal advantages in regard to it. It is manifestly a deplorable condition, when violators of medical laws are allowed to profit by directly violating a public compact with their brethren, and when those who adhere to their recorded or admitted pledges suffer for their good faith and fidelity. Either equal privileges should be allowed to all or transgressors should be tried and held publicly responsible. It is the manifest and undeniable duty of every physician to report all violations and violators of our recognized and established laws to the proper tribunals, County or State Medical Associations. If the laws are right, all should be made to observe them; if they are wrong, they should be modified or expunged. Any other other course is puerile and inexcusable.

THE editor acknowledges the receipt of a most excellent and useful little manual, prepared by J. W. Maxwell, M.D., Professor of Chemistry in the Kentucky School of Medicine, for the use of his class. The subjects of this manual are Incompatibles, Specific Solubilities, Insolubles, Efflorescent and Deliquescent Bodies, Poisons and Antidotes. This creditable work is most useful to the busy practitioner, as well as to the student, giving, in brief space, all of the important and necessary information connected with these subjects. There is not a superfluous word in this manual, a rare virtue in these days of bookmaking, and one which gives increased value to the many excellencies otherwise apparent.

IN a short notice of the Louisville Board of Health, last month, it was stated, that it is "composed, with three exceptions, of respectable physicians." The exceptions to whom reference was made are represented by three unprofessional municipal officers.

THE review of Tanner's work, in this number of the Journal, should have had affixed to it the initials J. A. O.

The valedictory address of Dr. M. H. Houston, Vice-President, before the Richmond Academy of Medicine, has been received. His appeal to the pride of his brethren for sustaining this excellent Society, and his well timed irony addressed to those who refrain from joining the Academy or attending its meetings, are well conceived and judicious. The kindly allusions to the President of the Society, whose interests have called him to Kentucky, are made with characteristic generosity and feeling. The address was published by request. It is good seed sown in good ground and the results can not be otherwise than excellent.

Kentucky School of Medicine.—In the "Announcement" just made by the Faculty of the Kentucky School of Medicine, it is stated that this Institution (in accordance with a public intimation given last Summer) proposes to return to its old rates; being those charged by many of the first class Colleges of the country. The editor hopes soon to have the pleasure of making the same announcement in regard to the Medical Department of the University of Louisville, and he has every reason for believing, that the Louisville Medical College will also support this commendable policy.

Medical Department of the University of Louisville.—It is due to the Faculty of this Institution to say, that they have abandoned their intention of giving a Spring course of lectures.

Correction.—Dr. Eve was invited to take the chair of Anatomy (and not Surgery) made vacant by the death of Dr. Granville S. Pattison.

On page 240 of the February Journal, for the present year, the word "trespass" is unfortunately printed tress-pass.

NOTICES.

All receipts for money are inclosed in the succeeding number of the Journal.

As a few patrons of the Journal stated that they supported it, last year, because it was sent to them, a printed slip was inclosed in the January issue of this year, asking all who did not desire the Journal to return it. So far, less than fifteen copies have been returned.

The editor must, reluctantly, ask that those who correspond with him on business will enclose a stamp, for the reply necessary. This may seem somewhat penurious, but when it is stated, that the postage account of the Journal is now more than $200 00 a year, the necessity of the request will be apparent to every one. Letters with or without a stamp inclosed have always been answered, and will always be answered cheerfully, but attention to the request mentioned will save the editor from serious loss.

Mr. W. P. Holloway is the General Business Agent of this Journal and, as such, is fully authorized to negotiate any business connected with the work. His unwearying industry, his uniform efficiency and his unchanging interest with the cheerful discharge of his arduous and complex labors, have contributed very much to the past and present success of the Journal.

BOOKS AND JOURNALS RECEIVED.

A Treatise on the Diseases of Infancy and Childhood. By J. Lewis Smith, M.D., Curator to the Nursery and Child's Hospital, New York, Physician to the Infants' Hospital, Ward's Island, Professor in Bellevue Hospital Medical College, New York. Henry C. Lea, Philadelphia, 1869. From the publishers.

The Science and Practice of Medicine. By Wm. Aitken, M.D., Edinburgh, Professor of Pathology in the Army Medical School. With large additions. By Meredith Clymer, M.D. In 2 vols. Lindsay & Blakiston, Philadelphia, 1868. From the publishers.

A Hand Book of Uterine Therapeutics and of Diseases of Women. By Ed. John Tilt, M.D., Member of the Royal College of Physicians, etc., etc. D. Appleton & Co., New York, 1869. From the publishers.

Pronouncing Medical Lexicon, Containing the Correct Pronunciation and Definition of Terms Used in Medicine and the Collateral Sciences. By C. H. Cleaveland, M.D. Lindsay & Blakiston, 1869, Philadelphia. From the publishers.

Syphilis and Local Contagious Disorders. By Berkley Hill, M. B., London, F. R. C. S., Assistant Surgeon to University College Hospital, etc. Philadelphia, 1869, H. C. Lea. From the publishers.

Lectures on the Study of Fever. By Alfred Hudson, M.D., M. R. I. A., Physician to the Meath Hospital. Philadelphia, 1869, H. C. Lea. From the publishers.

Valedictory Address before the Richmond Academy of Medicine. By Dr. M. H. Houston, 1869.

A Conspectus of the Medical Sciences, Comprising Manuals of Anatomy, Physiology, Chemistry, Materia Medica, Practice of Medicine, Surgery and Obstetrics, for the use of Students. By Henry Hartshorne, A.M., M.D., Professor of Hygiene in the University of Pennsylvania, etc. With 310 illustrations. Henry C. Lea, Philadelphia, 1869. From the publishers.

On Chronic Bronchitis, Especially as Connected with Gout, Emphysema and Diseases of the Heart. By E. Headlam Greenhow, M.D. Philadelphia, Lindsay & Blakiston, 1869. From the publishers.

The Use of the Laryngoscope in Diseases of the Throat. By Morell Mackenzie, M.D., London, M. R. C. P. Second edition. With illustrations, etc. By J. S. Cohen, M.D. Philadelphia, 1869, Lindsay & Blakiston. From the publishers.

Essentials of the Principles and Practice of Medicine; a Hand Book for Students and Practitioners. By Henry Hartshorne, M.D. Philadelphia, Henry C. Lea, 1869. From the publishers.

Clinical Lectures on the Diseases of the Urinary Organs. Delivered at the University College Hospital. By Sir Henry Thompson, Professor of Clinical Surgery, etc. Philadelphia, H. C. Lea, 1860. From the publishers.

Minutes of the Thirty-fifth Annual Session of the Tennessee Medical Society. Nashville, Tenn., 1869.

The Physicians' Dose and Symptom Book. By J. H. Wythes, A.M., M.D. Philadelphia, 1868, Lindsay & Blakiston. From the publishers.

Very truly Yours,
Chas. A. Pope

Hart & Mapother Lith, Louisville, Ky

THE RICHMOND AND LOUISVILLE

MEDICAL JOURNAL.

VOL. VII. APRIL, 1869. No. 4.

ORIGINAL COMMUNICATIONS.

"Qui Docet Discit."

ART. I.—MYOPIA; ITS INCREASE, SOME OF ITS CAUSES, AND HOW IT MAY BE IN A MEASURE PREVENTED.

By J. J. CHISOLM, M.D., Prof. of Military Surgery in the University of Maryland and Surgeon to the Baltimore Eye Dispensary.

It has been the subject of common remark, that in our generation defects of vision are becoming very frequent, and that eye diseases are on the increase; indicating for this, the most valued of the five senses, a progressive degeneration. The old members of society, who do not admit that weak eyes were one of the troubles of their day, stigmatize myopia, or near-sightedness, as a blind, introduced by the fashionable world and generally adopted, on account of the convenient privileges which it affords for staring rudely at people. Notwithstanding the deference which we are accustomed to pay to the opinions of our seniors, we must recognize the fact, *that defects of vision are constantly on the increase*, and are, moreover, accompaniments of intellectual progress and, therefore, more frequently met with in the best society.

The rapid advancement of ophthalmic science, and the improved means of detecting these ocular defects, have brought to light many cases which would formerly have remained unrecognized; but this does not altogether explain the increasing number of cases which we daily meet with, and we must look elsewhere for a solution of this important question.

A tendency to disease or defects is often an hereditary gift, handed down from parent to child through generations. Eye diseases are no exceptions to this rule and we therefore find near-sighted children the offspring of myopic parents. But such causes of myopia are the rare exceptions; the majority of cases can be traced to no such source.

We find some light thrown upon this very interesting subject, in a recent German publication, by Dr. Hermann Cohn, of Breslau, entitled, "Untersuchungen der Augen von 10,060 Schulkindern," from which I have made the following extracts. M. Cohn did not design a new field of investigation, when he collected the eye defects of so many school children. This field of inquiry had been traversed before by Dr. James Ware, in 1812; by the administrative authorities in the Duchy of Baden, in 1840; by M. Szokalski, at Paris, in 1848; by M. Jaëger, at Vienna, in 1861, and by M. Ruete, at Leipsich, in 1865. M. Cohn's investigations are only more reliable than those who preceded him, inasmuch as their statistical statements were made up from reports derived from the teachers of the schools, whilst M. Cohn examined himself, with every care, the 10,060 pupils; and wherever a defect in vision was detected, besides the usual tests, the ophthalmoscope in every case aided in the investigation.

For these studies, the author chose thirty-three schools, five of which were village schools, in Silesia, containing 1486 pupils, and twenty-eight were city schools in Breslau, comprising 8574 scholars. Among the city schools, twenty were primary and the remainder schools of higher grade, including gymnasia or colleges. Of the 10,060 pupils examined by M. Cohn, 1730 were found "ametropic," a general term given to cases of defective vision from defective adjustment, including all cases arising from irregularity of refraction in the transparent media of the globe of the eye; when the refraction is in excess, it is called one of "myopia;" when the refraction is deficient, it is called "hypermetropia" and when the refracted rays are very irregularly transmitted to the retina or screen for receiving the image of the object looked at, the condition is called one of astigmatism.

The table stands thus: Of the 10,060 cases examined 8.330 or 83 per cent. had sound normal eyes with perfect sight; 1.330 or 13 per cent. were found with errors in refraction; 296 or 3 per cent., embracing all other diseases of the eyes. This table shows that among school children there are more diseases in refraction than of all other diseases of the eye put together.

Among the 1330 cases of defective vision, 1072 were myopic or near-sighted; 239 were hypermetropic or oversighted, and only 23 were astigmatic, or cases in which there was no perfect focus found upon the retina, either for long or short distance.

M. Cohn deduces the following as the result of his extended observation among a large number of children.

1. That cases of myopia can be found in every school.

2. That the number of these cases will continually vary, depending upon the grade of the school.

3. That but few cases are met with in country schools, only 1.4 per cent.

4. That, in the same grade of school, myopia will be found eight times more frequently in city schools—11.4 per cent.

5. In primary schools of cities there are four or five times more cases of myopia than in rural schools—6.7 against 1.4 per cent.

6. That superior schools for girls exhibit more cases than in primary schools—7.7 against 6.7 per cent.

7. In city schools the frequency of myopia bears a fixed relation to the grade of the school—primary, 6.7 per cent.; medium schools, 10.3 per cent.; normal schools, 19.7 per cent.; gymnasia, 26.2 per cent.

8. In country schools, as in those of cities, the proportion of myopics vary according to the status of the school, but never more than 2.4 per cent.—the lowest per centage being 0.8, the highest 3.2 per cent.

9. In a given number of the higher schools the per centage of myopia would differ but little in the individual schools. Of the one hundred and sixty-six classes in the thirty-three schools, the eleven lowest classes contained no myopics. In the rural schools the pupils were arranged in three classes, and defective vision was found among them in the following proportions: The third, or lowest class, gave 1.4 per cent. myopic cases; the second classes, 1.5 per cent.; the first, or most advanced classes, 2.6 per cent. of myopia. A similar organization among the city primary schools gave, for the third, or lowest classes, 3.5 per cent. of near-sighted pupils; in the second order, 9.8 per cent., and in the first, or highest classes, 9.7 per cent. In the normal schools, commencing with the lowest form, we have the following per centage of myopics among the pupils: 9.6 per cent., 16.7 per cent., 19.2 per cent., 25.1 per cent., 26.4 per cent., 44 per cent., and lastly, in the gymnasia, or highest schools, the classes in similar order were found thus: 12.5 per cent., 18.2 per cent., 23.7 per cent., 31 per cent., 55.8 per cent. In the highest branches of study, more than one-half of the students were near-sighted, and, in whatever school selected,

the higher classes always exhibited an increased myopia over the per centage found in the lower classes.

The examination of the eyes of these many scholars also showed that the degree of myopia was always in relation with its frequency. With advancing age and higher studies, requiring more continued application, there was always a steady advance in the degree of defective refraction. In the lowest classes, with young children, 1-35 marked the degree of myopia; in the highest classes, among the most advanced pupils, it had increased to 1-7, which would require very strong concave glasses to remedy the defect of refraction. Of the 1072 cases of myopia, only twenty-eight could be traced to hereditary causes, a proof that short-sightedness is most frequently an acquired condition, an accompaniment and product of education.

M. Cohn traces its development and progress to one of three causes:

1. Defective construction of benches in schools.
2. Defective light in school-rooms.
3. Improper use of too weak or too strong glasses by pupils.

Upon careful examination of the school-rooms, Dr. Cohn found the benches and desks very defective as to their arrangement, position, hight and inclination, and not suited to the hight of those who occupy them. On this account the pupils were compelled to keep the head bent in a forced position, which impeded the returning venous circulation, and produced, consequently, choroidal congestions. Also, the near position of the book upon the desk necessitated exaggerated efforts of accommodation, with excessive pressure upon the globe of the eye. These two effects of a vicious and forced attitude sufficed to produce elongation of the globe of the eye, and consequently myopia.

In investigating the second category of causes, the author established by his observations that where schools were located in narrow streets, and surrounded by lofty houses—conditions in which the school-rooms were necessarily dark—the per centage of myopic cases was always found augmented. Among the twenty primary schools of Breslau, some were located on broad streets in the new quarter, whilst others were situated in the dark and narrow lanes of the old town. Among the first of this class of schools the per centage of myopia varied between 1.8 per cent. and 6.6 per cent.; in the second class, of dark schools, the percentage varied from 7.4 per cent. to 15 per cent., clearly exhibiting the effects of bad light, and indicating the necessity for selecting school sites with judgment.

As to the third cause, the injudicious selection of glasses, Dr. Cohn found among his entire number of pupils 107 who were wearing glasses. Ninety-nine of these had selected the spectacles for themselves, and in only eight cases had they been selected by physicians. Of the entire number, twenty-six spectacles suited, the lenses neutralizing the myopia. In forty-one, the glasses were too weak, and in forty too strong.

Such are some of the causes to which Dr. Cohn attributes the great frequency of myopia in schools. He refers to the disease as one to which attention should be directed on account of its gravity. For when not cared for, the tendency of this affection is to increase with age, and may even threaten the loss of sight by the formation of a posterior staphyloma, with consecutive atrophy of the deep membranes of the eye, which are sometimes drawn into the pathological pit around the entrance of the optic nerve.

The three practical deductions of Dr. Cohn, as preventives or prophylactics, are—

1. That the hight of school benches should always be in proportion to the hight of the children who use them.
2. That school-rooms should always be well lighted.
3. That when spectacles are required, they should always be selected by some competent physician.

ART. II.—OVARIOTOMY. By J. H. THOMPSON, M.D., of Washington, D. C. Published by special request of the Medical Society of the District of Columbia, Washing, D. C.

REPORT OF THE PROCEEDINGS.

In 1868, a female patient, æt. twenty-two years, unmarried, consulted Dr. T. on account of the presence of an abdominal tumor which had existed, to her knowledge, for the last fifteen months, but of small size; three months previously, however, it had grown to such a size as to create suspicions of pregnancy among her friends. On examination, sufficient fluctuation was felt to enable the Doctor to pronounce it to be an ovarian tumor, containing fluid, and in the following month, at the request of the patient, the tumor was tapped and three quarts of fluid drawn off, consisting, to all appearances, of laudable pus. No inflammatory symptoms ensued and three days after the operation the patient was up and about as usual, the tumor being quite small and scarcely to be detected except by careful manipulation. After a duration of three months, the patient again made her appearance, the tumor having grown to the size of a pregnant uterus of three months. It was again tapped, the instrument used being a trocar having the diameter of one-eighth of an inch, but no fluid was obtained on its withdrawal. A brisk inflammation ensued, extending to the cyst wall, with circumscribed peritonitis. The patient was put under the opium treatment, and in from ten to twelve days recovered and returned home.

In July, at the request of the patient and her friends, and with the advice of Drs. T. Miller, J. Eliot and F. Howard as consulting physicians, the tumor was removed, Drs. Raines, Mackall and Reyburn being present, by invitation, at the operation with the gentlemen just named. The pedicle being short was ligated and returned into the abdominal cavity, the cyst was unilocular and, on being laid open, was found to be filled with lumps of fat, or inspissated material, looking like the boiled yolk of an egg. A small amount of fluid was present, which was so thick that it would not run through the canula. For the first four days there were no inflammatory symptoms, the pulse ranging from 82 to 84, with no pain, no tympanitis and no tenderness, on pressure; the bowels were moved and the appetite and digestion good. On the fifth day (which was exceedingly hot) the menses appeared. On making his afternoon visit of that day, the Doctor found the patient lying in bed with her knees drawn up, and cloths, which had been dipped in ice-water, applied to her abdomen, upper and lower extremities. The menses stopped; a severe pain in the back set in; the pulse ran up to 100; and, on the afternoon of the following day, death ensued. No post mortem examination was allowed, but the incision through the walls of the abdomen had healed by first intention.

The tumor was found to contain hair, teeth with the mucous membrane of the gums, a plate of bone containing two points of ossification and simulating the parietal bone and a long bone; these growths being independent of the cyst wall. On a microscopical examination by Dr. Woodward, these growths were decided to be true bone, true mucous membrane and true integument with well-developed sweat follicles.

In the discussion which followed, Dr. Reyburn, having been present at the operation, desired to confirm Dr.

T.'s statement as to the favorable condition of the patient, up to the day before her death. In discussing the case, he thought it not one of tubal pregnancy but merely a morbid growth.

Dr. Mackall having been present at the operation, complimented the skill of the operator, and spoke of the favorable condition of the patient, when last seen by him. He was much interested in the case, suspecting the virtue of the patient, but, after consulting authorities, became of the opinion that the tumor was merely a morbid growth. He then proceeded to quote from various authorities whom he had consulted as Vogel, "who considered these growths as not partly absorbed fœti, from the fact that two sets of teeth, and, in some, several hundred, were often found at one time, and that in birds, where the egg is developed after leaving the body, tumors filled with feathers have been found." Simpson "considers the cause obscure, but that they are morbid growths," and Copeland states, "that these cysts are found generally before puberty, and, also, in other parts of the body besides the abdominal cavity."

Dr. Toner referred to a case which had been reported in some medical journal, of the presence of an abdominal tumor in a boy, which, after death, was opened and found to contain bones.

Dr. J. Ford Thompson thought the question as to the cause of these tumors to be settled at the present day in the minds of all late authorities, that they were morbid growths, the only question of scientific interest concerning their origin being whether they originated from the wall of the graäfian vesicle or from the ovum itself. He questioned the propriety of operating in this case, and contended that it was not necessary—the second tapping having found no fluid, and the tumor not being large enough to endanger life—quoting late authorities to support him in his opinion.

Dr. J. H. Thompson referred to late authorities, who say "you are not to wait until life is endangered." If the ovarian cyst is to be removed, it should be removed before the critical symptoms appear, as the risk will be greater the longer we wait. To this is due the success of Spencer Wells. The reason the fluid could not be drawn off was because of the presence of the fatty balls mentioned, which occluded the mouth of the canula. How can we tell a dermoid growth from an ovarian cyst which has undergone fatty degeneration?

Dr. J. Ford Thompson thought Dr. J. H. T. could not state a case where a tumor was removed containing less than three quarts of fluid, and that no uterine surgeon would tap an ovarian tumor of that size.

Dr. J. H. Thompson quoted Spencer Wells and Baker Brown as operating as soon as the diagnosis of an ovarian cyst was made out, no matter what the size, and the sooner the better. He also mentioned a case of his which had been operated on by Dr. Washington Atlee, of Philadelphia, who had removed but two quarts of fluid from the tumor.

Dr. Liebermann objected to placing this case among the class of rare cases to which it had been assigned, from the position of the tumor at the opening of the fallopian tube, and from the fact of its containing fœtal substances. He would question the patient's virtue, and wished to know the cause of death.*

Dr. J. H. Thompson thought her death was not due to the operation, but, as there was no *post mortem* examination, he could not give the proper cause.

---

*These cutaneous proliferous cysts and dentigerous cysts are by no means uncommon and can not, by any scientific test, be regarded as

Dr. J. Ford Thompson thought the return of the ligated pedicle into the abdomen might light up a peritonitis more than five days after the operation.

In response to a question from the President, Dr. J. H. Thompson stated that if the menses had been present they need not have retarded the operation, but that the administration of ether under such circumstances would probably have induced menorrhagia, citing such cases.

Dr. W. P. Johnston referred to a case of fibroid tumor which had been removed and on menstruation taking place a few days after the operation, the cavity of the sac filled with blood and the sac had to be opened and the blood removed; the case being considered one of vicarious menstruation. He thought inflammation might ensue under such circumstances from the congestion of the part.

Dr. J. H. Thompson thought that when reaction took place after an operation, some vessels, which had escaped ligation, might bleed and form clots which would fill the cavity and arrest the hæmorrhage.

Further discussion on this subject was then laid over until October 14, 1868, when the debate was opened by Dr. J. H. Thompson, who, to sustain his statement made at the last meeting, read extracts, bearing on the subject, from the works of Baker Brown, Spencer Wells and Grailey Hewitt, to show by them, among other points, that a well established ovarian tumor ordinarily proves fatal in a few years, and when multilocular much sooner,

---

evidence of a want of chastity. Since they were first described by Kohlrausch, numerous reports have been given by Lebert, Müller, Goodsir, Ogle, Paget, Rokitansky, Virchow and very many other writers. They are found not only in the ovaries, but in the testicles, kidney, lung, bladder, and even within the cranium. Dr. Gordon describes a growth containing many teeth and two pieces of bone in the anterior mediastinum of a woman, and Long describes an ovarian tumor containing "more than 300 teeth."—[ED.

and that dermoid tumors should especially be removed.

Dr. Liebermann asked if the patient had been informed of the gravity of the operation, what was the condition of her uterus, and what were the reasons for operating.

Dr. J. H. Thompson stated that, before operating, the patient had been fully informed of the risks and dangers attending the operation. He did not report his examination of the condition of the uterus, as he presented the case merely in connection with the specimen, not anticipating the fact that a question would arise as to the propriety of operating. One of his reasons for operating at such an early day was in consequence of the brisk inflammation following the second tapping, he fearing the peritonitis might induce adhesions to be formed, and that subsequent tapping might increase that danger, thereby complicating the operation.

Dr. Eliot, among other remarks, stated that the uterus had been carefully examined at an early period in the treatment, and that the tumor could be grasped and pushed from side to side by the hands.

Dr. Reyburn, to show that pregnancy could not have had anything to do with this case, referred to the fact that when children are first born, the teeth are not generally present, that the growths found were not characteristic of fœtal life—the hair not being natural to a fœtus, and the bony material not being sufficiently distinct to locate its character (with the exception of the teeth).

Dr. J. Ford Thompson quoted Baker Brown as read by Dr. J. H Thompson, as saying that "when the necessity has become apparent for the operation, then we are to operate," putting a different construction upon the meaning of the sentence from that given by Dr. J. H. T., namely, that the necessity was not yet apparent in his case and that no authorities had yet been quoted who say as soon as the diagnosis is made out we must operate. He thought that, in a grave surgical operation like this, the opinion of the patient should be taken into consideration only on the regative side of the question. He thought the fact of the ability to move the tumor from side to side enough to show that, from its small size, the operation was not called for, and that the extract from Hewitt, in reference to dermoid tumors, referred to composite tumors alone. The Doctor, to sustain his position, then quoted from Hewitt, Thomas, Simpson and Byford, concluding his quotations by stating that ten per cent. of all cases of ovarian tumors lived for years, and further asking the questions: Why was the tumor tapped in the first place, being so small? and why operated upon after the dry tapping?

Dr. Mackall quoted from Baker Brown and Spencer Wells to show that dermoid tumors should be operated on when progressive in their nature as in his case, quoting further Hutchinson and Spencer Wells in support of the operation. He stated also that in thirty-eight cases operated on by Spencer Wells, nine were in good health, and two contained less than three quarts of fluid. In twenty cases operated on by Baker Brown, seven were in good health and two had a capacity smaller than three quarts. Quoting Tyler Smith to show that the affirmative opinion should have great weight in the decision for operating. He thought Dr. J. Ford Thompson had not succeeded in sustaining his position.

Dr. J. Ford Thompson, among other remarks, to show how life may be prolonged with such a condition of things existing, referred to an autopsy which he had performed on a woman dying of pneumonia, where an ovarian cyst was found containing three gallons of fluid, she having lived for some years without suffering much inconvenience therefrom.

Dr. Eliot confirmed the statement as to the slight amount of inconvenience from the tumor to the woman during life.

Dr. J. H. Thompson objected to the authorities quoted by Dr. J. F. Thompson as not being specially uterine surgeons in their practice but general obstetricians, making other remarks and quotating from Simpson and Wells as to the importance of considering the patients' opinion. In reply to a question, he stated that the patient was tapped in the first instance to relieve inconvenience and confirm the diagnosis.

Dr. J. Ford Thompson still held his opinions as unshaken. On the same grounds he might take exception to Tyler Smith as authority. He thought the opinion of Baker Brown should be taken with caution from the character of his operations. He mentioned a case which had been operated on by Dr. Washington Atlee, a tumor of large size, which was tapped and found to contain only serum. The operation was not proceeded with on that account, but the patient died at the end of three months from irritative fever.

Dr. Mackall stated that Tyler Smith had operated in as many cases as Baker Brown, and, from his success in such operations, took the first rank among that class of surgeons.

Dr. Marbury inquired whether the prospect of success would not have been better if the operation had been deferred to a milder season, and to a period other than that of menstruation.

Dr. J. H. Thompson replied, that he preferred not to wait for the reasons before stated, and thought menstruation would have no effect.

After some further discussion the debate was closed.*

---

*The opinions of others, in regard to the points at issue, will be published with pleasure.—[ED.

Art. III.—Fungous Tumor of the Fangs of a Molar Tooth, Diagnosed and Treated as a Case of Menoplania. By Geo. Syng Bryant, M.D., Lexington, Ky.

Miss —, æt. 16 years; a blonde; tall, thin and pale; skin of a chlorotic cast. Has suffered much from palpitation of the heart and indigestion; appetite has usually been depraved for several months past.

Prior to the last eighteen months this young lady had been healthy and ruddy; but being ambitious to outstrip her classmates she gave herself up to arduous study and soon her health began to fail. She did not, however, relax her efforts at the school-form. Periodical headache, attended sometimes with sick stomach, would compel her to leave the school-room and retire to bed; these attacks lasting from 24 to 48 hours.

At fourteen years of age the catamenial eruption took place and continued regular and normal for about nine months; then became irregular and scanty, and finally ceased altogether. About the time of the cessation of the catamenia the headaches grew worse and more frequent and were usually attended with an uneasy sensation, or slight aching of the second lower molar tooth of the left side. After a few weeks, the head symptoms and toothache became so much worse that continuance at school was impossible.

The tooth being apparently sound, the physician in attendance, regarding both the tooth and headache of neuralgic character, and dependent upon close confinement and hard study, put the patient upon tonics, and advised exercise in the open air whenever practicable. It was observed that the bleeding from the gums of the affected tooth was assuming a periodical tendency. The physician believed this hæmorrhage to be an example of vicarious menstruation, and the case attracted much attention. Being called in consultation, I learned the above history, substantially, from the family physician. It was evident, to my mind, that the young lady was laboring under a chlorotic amenorrhœa, with great impairment of the nutritive functions, which, in this case, was probably the primary etiological element of the chlorosis and amenorrhœa. Upon close inspection of the affected tooth, I discovered some enlargement, and slight inflammation of the gums around it. Being fully persuaded that this was a case of disease of the fangs of the tooth, accompanied with periodical hæmorrhage, and that it was not a case of menoplania, I advised that the tooth be extracted immediately, and the patient put upon treatment suited to her amenorrhœal and chlorotic condition. This opinion was opposed by the attending physician and another present in the consultation. Upon being sent for again, in the course of two weeks, I urged the pulling of the tooth, which was consented to, and on the following day the tooth was extracted by a skillful dentist. Both fangs were found affected with a fungous tumor—one the size of a small pea, and the other not as large. I need scarcely add that the hæmorrhage never returned, the headaches grew less frequent and severe, and in a few months the attenuated, nervous young sufferer was fully restored to health.

May not many of the so-called examples of vicarious mentruation be only cases of amenorrhœa, complicated by other diseases.

ART. IV.—CONGENITAL ARTIFICIAL ANUS AT THE UMBILICUS. By A. SYDENHAM MAYO, M.D., Powhatan Court House, Va.

I was called during the month of April last to visit a female infant, seven days old, of mixed parentage, and was informed that the midwife thought it very strangely affected about its navel. On my arrival, I removed the bandages and dressing from the cord and the first thing that saluted me was a considerable discharge of flatulence through the umbilicus. Upon further examination I ascertained that the cord had separated as usual, except it had left an ulcerated surface, and from this surface during my manipulations the child had a copious operation. I next looked for an imperforate anus, but found everything in that locality in a state of perfect conformation, and the child still passing a portion of its stools *per vias naturales.*

I cauterized the opening pretty freely with nitrate of silver, thinking by this means to excite an adhesive inflammation, and thus obliterate the aperture. This did not accomplish the desired object, and I next ligated the funis a second time, hoping to detach another portion and leave the remainder impervious. This last treatment succeeded. Never having seen a case of the kind before, or remembered to have read of one, I proceeded to examine the authorities on the subject, and, after considerable search, found one case recorded, in which it was thought that the ligature was applied too near the abdominal walls, and included a portion of the ilium at this region. This I do not think could possibly have been the fault here, as the cord was properly tied two and a half inches long.

Query.—Could not the conduit to the vitelline sac have been left pervious as a remnant of intra-uterine structure?*

***Those having seen or treated such cases will please report them.—[ED.**

ECLECTIC DEPARTMENT.

"Carpere et Colligere."

Art. I.—Atropia: Its Chemical, Physiological and Therapeutic Action, together with Experiments instituted to Ascertain its Toxicological Properties.*

By Samuel R. Percy, M.D., Prof. of Materia Medica, Physician to Mount Sinai Hospital, etc.

ATROPIA. $C_{34}\ H_{23}\ N\ O_6\ \overset{+}{At}.$

SECTION FIRST.

Division First.—*History.*

Atropia is an alkaloid obtained from all parts of the belladonna-plant, but in largest quantity from the root. It has also been inappropriately called atropina, atropine, atropin, atropinum. The termination in *ia* designates it an alkaloid, and, to avoid confusion and the liability to mistakes, the term atropia only should be used. Vauquelin made an analysis of the juice of the belladonna, but did not succeed in isolating any alkaloid principle. Brandes, in 1819, repeated this analysis, but with no better results. The alkaloid atropia was first exhibited in 1828, nearly simultaneously, by Geiger and Hesse. In 1833, it was obtained by Mein. Geiger and Mein obtained by their method about 20 grains of nearly pure atropia from 12 ounces of freshly-dried root of two and three years' growth. Von Planty made minute chemical analyses of atropia, and found that its chemical reactions were almost identical with daturia. Schroff repeated these analyses, and also tried both alkaloids therapeutically. He says that their chemical analyses are both alike, but that daturia is nearly twice as powerful as atropia. Lübekind, in 1839, stated that he had split up atropia, and had found in it a second alkaloid which he named belladonin, which had different chemical reactions from pure atropia.

---

* An essay, for which was awarded the prize for the year 1867 and 1868 of the Alumni Association of the Medical Department of Columbia College. This article, though long, will amply reward the reader for a careful study of it.—[Ed.

DIVISION SECOND.—*Processes for Obtaining Atropia and its Salts.*

Mein adopted a process for obtaining atropia which may be found in full in Journ. de Pharm., tome xx., p. 87. M. Rabourdin, an apothecary of Orleans, published, in 1850, a formula for preparing atropia by means of chloroform, which may be found in Gazette Méd. de Paris, 19 Octobre, 1850. The process adopted by the U. S. and British Pharmacopœias may be found under their respective heads. Professor William Proctor read a paper before the American Pharmaceutical Association upon the preparation of atropia from American belladonna-root; the process recommended by him has, with slight modifications, been adopted as the process of the U. S. Dispensatory. Professor Proctor's process may be found in the proceedings of the Am. Phar. Association.

When ophthalmic surgeons first used atropia, it was their custom to order the atropia to be dissolved in a sufficient quantity of water, by aid of sulphuric acid. In almost all instances, more acid was used than was required; in fact, it was impossible to dissolve it in its proper combining proportion, and, if the alkaloid was not pure, a very great excess of sulphuric acid was used. This acid-solution was very irritating to the eyes, and it soon became obvious that some formula must be adopted to obtain a perfectly neutral sulphate. With this view, M. Maitre offered a formula for the preparation of neutral sulphate of atropia, which may be found in the Am. Jour. of Pharmacy, 1856, p. 360.

In the last edition of the "U. S. Pharmacopœia" this formula of M. Maitre's is followed very closely.

Both of these formulæ gives a sulphate of atropia in powder, which is much more liable to be adulterated than if in a crystallized form. M. Laneau, deeming that an agent so important in ophthalmic surgery should be of unquestioned purity, offered the following formula for its production in crystals:

"Take of crystallized atropia, 289 grains; Absolute alcohol, 800 grains. The solution is effected by agitation, in a glass capsule, aided by very gentle heat. Then weigh in a small phial, sulphuric acid, sp. gr. 1.85, 40 grains. Dilute this acid with 800 grains of anhydrous alcohol, and add it, little by little, to the solution of atropia. To complete the saturation, the solution is stirred with a glass rod, moistened slightly with concentrated alcohol, until test-paper shows neutrality. The solution is then suffered to evaporate spontaneously. The crystallization is effected in three or four days in the summer, or five or six days in the winter. The thinner the stratum of liquid, the more quickly is the process effected. The crystals, which may be dried without destroying their form, are in colorless needles, more or less interlaced. When chloroform is used instead of alcohol, the salt is obtained in a gum-like mass. Crystallized atropia is soluble in water, weak alcohol, and absolute alcohol, but is insoluble in chloroform and ether."

Hydrochlorate and acetate of atropia may be obtained as crystalline salt; the valerianate as a thick syrupy mass.

DIVISION THIRD.—*Physical Properties of Atropia and of its Salts.*

Atropia, as prepared by the U. S. Pharmacopœia, is impure; but, when purified and crystallized from concentrated warm solutions, is in white, transparent, silky, prismatic crystals; when crystallized by very slow evaporation, it is in needle-like crystals. In the impure form, it is a fawn-colored powder. It is soluble in 300 parts of water at 60° F., in 3 parts of chloroform, in 25 parts of ether, and in less than 3 parts of absolute alcohol. In all these liquids, it is much more soluble hot than cold. It is without odor, but is of a very acrid bitter taste. It melts at 194° F., and the greater part of it is volatilized at 285° F. Heated for some time with potassa or soda, it is decomposed, and gives out an odor of ammonia. It has the property of left-handed circular polarization. It is of alkaline reaction, and forms crystallizable salts with sulphuric, hydrochloric and acetic acids.

The sulphate of atropia of the U. S. Pharmacopœia is a white, semi-crystalline powder. That prepared by M. Laneau's formula is in clear white needles. Both are neutral to test-paper, very soluble in alcohol and water, but insoluble in pure ether and chloroform. A solution of atropia can soon be known by its effect in dilating the pupil of the eye.

Valerianate of atropia does not crystallize. It is a thick syrupy liquid of a fetid valerianic odor, very soluble in water and alcohol. It is readily decomposed by the weakest mineral acid, with evolution of valerianic acid.

DIVISION FOURTH.—*Behavior of Atropia with Chemical Tests and Reagents.*

A solution of atropia in hydrochloric acid furnishes, with—

Potash, a pulverulent precipitate, if the potash solution is concentrated and in slight excess; a large excess of potash dissolves the precipitate.

Carbonate of potash produces the same result.

Ammonia gives a precipitate much the same as potash, but is more readily soluble in an excess of ammonia than in potash.

Terchloride of gold gives an abundant yellow precipitate, which is soluble in an excess of hydrochloric, acetic, or sulphuric acid.

Bichloride of platinum gives a dirty-yellow precipitate.

Iodine, in iodide of potassium, an immediate, copious, brown, amorphous precipitate, which slowly dissolves in a few drops of a solution of potash.

Tannic acid, a dirty-white precipitate, soluble in a strong solution of potash, and in hydrochloric acid.

Nitro-picric acid gives a sulphur-colored pulverulent precipitate.

Carbazotic acid, an abundant light-yellow precipitate, readily soluble in acids.

Bromine, in bromohydric acid, gives an immediate, copious, bright-yellow precipitate, which soon becomes a mass of twig-like crystals. If there is a deficiency of reagent used, the precipitate will dissolve, but is reproduced upon a further addition of the reagent.

Concentrated nitric acid dissolves atropia without any change of color, upon heating the solution, and, after cooling, the addition of a drop of chloride of tin-solution gives a copious white deposit; without heating the tin, salt produces no change.

Peculiarities in the behavior of atropia, with various tests and reagents, may be found in Annalen der Chemie und Pharm., Bd. cxxviii., pp. 273, 282; London Chem. News, May, 1864; Mayer, Am. Jour. of Pharm., 1864, p. 234.

Von Plata, in his analyses, determined that atropia and daturia were chemically identical, answering the same chemical tests and reagents. Wormley, in his later and more elaborate chemical and micro-chemical researches, arrives at the same results. Many of the German ophthalmologists acknowledge the chemical indentity, but assert that the two alkaloids differ somewhat in their physiological and therapeutic action.

The chemical formula for atropia is:

$$C_{34}\ H_{23}\ N\ O_{6} = 289\ \overset{+}{A}t.;$$

for sulphate of atropia:

$$C_{34}\ H_{23}\ N\ O_{6}\ S\ O_{3} = 829.$$

Mr. Scorby read a paper lately before the Sheffield Literary and Philosophical Society, in which he set forth the difficulties which the toxicologist encounters in his efforts to prove a case of poisoning by belladonna. These difficulties, he thinks are obviated by the use of the micro-spectroscope. "The spectrum of the juice of the belladonna is very distinct, especially when the coloring matter has been added to a solution of carbonate of soda. A small fraction of a single berry is sufficient to produce the spectrum-bands characteristic of belladonna."

Whether this be correct or not with regard to the fresh juice of the leaf or berry of belladonna, it would still be of little value in examining the secretions of persons poisoned by that plant, and would only be serviceable providing some of the juice or berry remained in the stomach. It would be of no value in detecting poisoning by atropia.

SECTION SECOND.

DIVISION FIRST.—*Physiological Action of Atropia upon Animals.*

Since the discovery of atropia, it has been used as a substitute for belladonna chiefly on account of the certainty of its action, but also because it is easier to use, and much cleaner than extract of belladonna.

As to the relative strength of atropia and belladonna Pfitzner says that one part of atropia is equal to 240 parts of extract of belladonna. Gieger says that one grain of atropia is equal to 200 of extract of belladonna, 600 grains of belladonna-plant, or 360 grains of powdered belladonna-root.

Whether used locally or generally, the effects of atropia upon the system are similar to those produced by belladonna; but it is more quickly absorbed, and produces its effects in shorter time than belladonna.

Reil says that both herbivora and carnivora are readily brought under the action of atropia, but that the latter are more easily and more quickly affected than the former; that sharp-sighted birds and cats are exceedingly susceptible to its effects.

Cogswell experimented upon frogs, injecting a solution of one grain of atropia under the skin of the right hind-leg which produced intercurrent convulsions on this leg, while the other was entirely relaxed. After a while, these convulsions ceased, but returned at the expiration of twenty-four hours.

Michea observed that snails did not suffer from the action of atropia, but that they were poisonous to animals that ate them.

The German physiologists have experimented with atropia upon a large number and upon different varieties of animals; they find its physiological action similar to that of belladonna, but more certain.

Case 1.—I administered to a large, coarse dog, which had been kept fasting for twenty hours, one quarter of a grain of the sulphate of atropia, at 9 o'clock A. M. It was wrapped in a thin slice of meat, and was swallowed greedily. The pulse at this time was 141 beats in the minute. In half an hour the pulse had increased 11 beats in a minute. The tongue was constantly thrust out, licking the lips, followed by masticatory movements and frequent deglutition; no saliva or mucus flowed from the mouth. A marked dilatation of the pupils was visible. Many efforts at vomiting were now made, but nothing was thrown up, and the efforts at vomiting did not cause a flow of saliva, as is most generally the case when a dog vomits. These efforts at vomiting continued about half an hour. A pail of water was then put by the dog, and he was allowed to drink as much as he pleased. At 11½ o'clock he stood with his legs spread wide apart, the eyes suffused, the pupils very widely dilated and staring; the respiration was accelerated, laborious and abdominal. He made no effort to move, but lapped greedily, if water was placed to his mouth. A stick pointed at the eye did not cause the lids to close, and the lids did not close, unless the eye was actually touched. He made no movement when called, and seemed as though he was both deaf and blind. He would not eat when meat was placed to his nose. A large quantity of urine was passed, but without moving from the position he was in.

At 12½ o'clock the dog was lying on its side, and did not move when struck a smart blow with a switch; the eyelids were open; the pupils enormously distended; the respiration rapid and abdominal; the pulse thin, wiry, and not to be counted.

At 6 o'clock P. M., the dog was still in the same position; the respiration was much easier, the pulse slower and fuller. At 9 o'clock, the next morning, the dog was walking about in a very dejected manner, the pupils widely dilated, with frequent strabismus. He ate sparingly and drank freely. The next day he seemed quite well, but the pupils were still large.

Case 2.—To a dog somewhat smaller than the last mentioned, that had been kept without water or food for twenty-four hours, a quarter of a grain of the sulphate of atropia was given in a small bolus of meat. The symptoms that supervened were very similar to those last described; but the dog was allowed no water. Ten hours after taking the atropia, he was seized with convulsions which lasted about fifteen minutes; deep coma then supervened, and he died in about half an hour. The tongue was swollen and indented with the teeth; the mouth was full of a ropy mucus, as were also the œsophagus and trachea. The mucous membrane of the stomach was slightly reddened, the intestines looked healthy, the heart was full of dark blood, as were also the arteries of the lungs; the kidneys were highly congested, sufficiently so to have caused death by uræmic poisoning. There was about half an ounce of urine in the bladder, which, applied to the eye of another dog, caused dilatation of the pupil.

Case 3.—To a much smaller dog, which had been kept without food or water for fourteen hours, a quarter of a grain of sulphate of atropia was given in meat. As soon as free dilatation of the pupils had taken place, a third of a grain of sulphate of morphia was given in a small bolus of meat. No water was given. No convulsion took place. The animal lay quiet; the respirations were full and deep, and not frequent; the pulse was slow and full; the pupils of the eyes as widely dilated as though no morphia had been given. In seven hours the dog died. The heart, lungs, and brain were full of dark blood; the kidneys were highly congested, and there was hardly a teasponful of urine in the bladder.

Case 4.—To a dog of about the same size as that last mentioned, which also had been kept for fourteen hours without food or water, a quarter of a grain of sulphate of atropia was thrown into the stomach, dissolved in half a pint of water. In half an hour this was followed by a third of a grain of sulphate of morphia, dissolved in two ounces of water, the pupils being widely dilated at this time. Mastication and deglutition were constant, but there was no vomiting. The dog was stupid, and unconscious to all noises, and it soon lay down. Four hours after giving the atropia, he was brought into a bright sunlight. By quickly removing a dark object, so as to allow the sun to shine quickly upon the pupil, contraction could be plainly seen. Eight ounces of thin Indian-meal gruel were thrown into the stomach. Nine hours after the first dose, the dog ate voraciously and drank a large quantity of water. The pupils were not largely dilated, and the animal seemed comfortable, though not playful.

I have repeated these experiments, and I find as a rule that, if atropia is given without water, the effects are much more irritative, and last much longer, than when a sufficiency of water is allowed. When death takes place, where water is not allowed, there is always congestion of the kidneys. Morphia, although an antidote to atropia in ordinary cases where water is freely allowed, is hardly an antidote where fluid is entirely withheld. A much larger dose of atropia may be borne without danger, if care is taken to keep the system well supplied with fluids; and the effects of poisoning pass off much more rapidly if warm diluents are prudently administered. Where diluents are freely given, the kidneys perform their function and gradually remove the poison from the system; but where large doses of the medicine are given, unaccompanied with liquids, the kidneys are unable to eliminate either the poison or the urea, and the animal consequently dies, frequently only from uræmic poisoning, at other times from the double effect of the poisoning from the alkaloid and uræmic poisoning as well.

Case 5.—Two drops of a solution containing 1-30 of a grain of the neutral sulphate of atropia were thrown, by means of the hypodermic syringe, beneath the skin over the supra-orbital nerve on the right side. The pupil of the right eye began immediately to dilate, and in one and a half minute but a mere border of the iris was to be seen. The dog's head was held so that a strong sunlight was shining in both eyes. In four and a half minutes the pupil of the left eye began to dilate slowly and continued to dilate for five minutes; but it did not dilate to any thing like the size of the pupil of the other side. The dog came when called, but his steps were uncertain, and, when he attempted to go down-stairs, he fell all the way down. The eyes had a lack-lustre, staring, congested appearance. The pupils were still dilated thirty-six hours after the injection.

Case 6.—A solution containing 1-16 of a grain of sulphate of morphia was thrown, by means of the hypodermic syringe, beneath the skin over the supra-orbital nerve of the left side, while, at the same time, 1-30 of a grain of the neutral sulphate of atropia was thrown in a corresponding place on the right side. The dog's head was held in a strong sunlight. Immediately the left pupil began to contract, and the right pupil to dilate, and in two minutes and a half the left pupil was not much larger than an ordinary shot, while the right had already dilated to its utmost extent. No coaxing could induce the dog to take a step; he lay down, with his head between his paws. In the dusk of the evening, about eleven hours after the operation, he ate, drank, and played quite freely. Upon applying a light to the eyes, they were still different in size.*

Case 7.—Six minims of a solution containing 1-6 of a grain of sulphate of atropia were thrown by the hypodermic syringe into one of the large veins of the ear of a dog. In 80 seconds he fell on his side, and died of coma in 3½ minutes. The pupils of both eyes were widely dilated. The dog had been sick, so no post-mortem examination was made.

---

*On the Antagonistic Action of Opium and Belladonna.—Prof. A. von Graëfe makes the following observations on the antagonistic action of opium and belladonna injected into the cellular tissue: When a solution of atropine has been injected hypodermically, three or four minutes afterward the pupil becomes dilated, the pulse rises to 140-160, and other symptoms of narcosis by atropine are observed. If morphia is then injected, all these phenomena, which would otherwise last for hours, disappear in a very short time. After a hypodermic injection of morphia, a considerable myosis is observed and the pupil cannot be dilated. This is probably to be ascribed to an active irritation in the sphincter muscle, just as mydriasis caused by belladonna is to be explained by active irritation of the dilatator muscle. A new fact, which Von Graëfe has observed, is the antagonistic action of these medicines upon the faculty of accommodation; although it has not occurred in all the cases in which he has operated. ATROPINE CAUSES PARALYSIS AND MORPHIA A SPASM OF ACCOMMODATION. In consequence of this, the space allowed to accommodation becomes greatly limited and myopia is the result. All distant objects are indistinctly seen; but, if concave glassss are used, this is obviated. It is true that the myopia is not so considerable as it appears to be when trials on

DIVISION SECOND.—*Physiological Action of Atropia on Man.*

Case 8.—To a gentleman of literary habits, who had used his eyes too much, a solution of the neutral sulphate of atropia was dropped into both eyes. In a few minutes the pupils were seen to be dilated, and in 45 minutes they were so widely dilated, that the iris was a mere border. He complained that he could not walk correctly, as he had altogether lost the adaptability of distance. He could not walk up stairs without holding to the banister and he would not walk down without assistance. When brought into a bright sunlight, it caused continued sneezing—reflex action.

For two days we kept him quite quiet, and under treatment for his diseased state, by associating the use of atropia to the eyes for the purpose of compelling him to be quiet; but, on the third evening, he found he could read by using an old person's spectacles. On the next day, the atropia was dropped into the right eye only, and a piece of gelatinized calabar-bean solution was placed in the left eye. The disturbance of vision was greater than before, and the adaptability to arrange distances was entirely lost; he could not even feed himself from his plate correctly. He could look at the bright sunlight, if the right eye was covered; but, if he did so when the left eye was covered, it caused him to sneeze frequently, and gave him deep-seated pain in the eye-ball. This plan was continued for the purpose of keeping him from study for about two weeks; proper exercise was given, and his health improved very much. After discontinuing the use of atropia, it was many days before the eyes recovered their natural power.

Case 9.—The author, while in perfect health, took 1-10 of a grain of sulphate of atropia in an ounce of water. It

---

both eyes are made, as, if only one eye is experimented upon, distant objects are more clearly distinguished; a circumstance which is, no doubt, due to the weakening action of morphia upon the internal muscles of the eye. But the phenomenon is only temporary and is generally only observed three-quarters of an hour after the injection. It is probable that, if a stronger dose of morphia was used, it would last longer and also be more constant; but it would not be justifiable to do this in order to satisfy physiological curiosity. The symptoms described are to be explained in the following manner: Opium and belladonna have an antagonistic effect upon the muscular fibres of the tensor chorioideæ, as upon the muscles of the iris; and the analogy would be quite complete, if a double and antagonistic innervation of the tensor chorioideæ, by both the third pair and the sympathetic nerve, was just as certain as it is for the iris.—[Medical Times and Gazette.

had a distinct, persistently bitter taste, and produced a numb sensation upon the tongue, somewhat similar, though less in degree, to that produced by aconite. In about ten minutes it produced a sense of nausea, which continued to increase until an effort was made to vomit. Although the effort at vomiting was made several times, nothing was thrown up. To this, intense thirst succeeded, and a frontal headache, which was lessened by closing the eyes. Next, a dryness was felt in the throat, and the tongue and mouth felt dry and feverish. These symptoms were not relieved, and only mitigated for a short time, by drinking water. This dryness of the throat increased, and was persistent for several hours, causing at first almost constant deglutition, and, toward the last, a strong effort to avoid deglutition, which had become painful. During the first two hours the pulse was less frequent, but afterward became smaller and more rapid. The eyes soon lost all control of distance; a printed book, held at the usual distance, was a perfect blur; held at a long distance, letters could be distinguished, but the words, upon looking at them, soon ran into confusion. Objects at a distance could be plainly seen, even a little more plainly than natural (hyperopia), but near objects, though for a moment distinguished, soon lost their distinctness. A numb or crawling sensation, a formication, was felt down the back, upon the arms and back of the hands. This formication was intense and very unpleasant upon the palate. Light became unpleasant to the eyes, causing pain deep in the eyeballs. Motion became unpleasant, and if the feet were lifted in walking the floor seemed to recede from them before they again were put down. A sliding of the feet along the floor seemed to be the only safe way of locomotion. The head began to be dizzy, and, for fear of falling, it was necessary to be seated in the easy-chair. Thirst, at this time, was very great, but only little water could be taken at a time, as the effort of swallowing was unpleasant. A languid feeling came on, as the semi-recumbent position was assumed, and whether sleep, accompanied with wild dreams, or waking hallucinations, followed, it was impossible to tell. Whether the brain was troubled with hallucinations, or with wild, fantastic dreams, they were exactly the opposite to those produced by cannabis indica, for all the imaginations and conversations were of the long past—none of the future. Whether there was total blindness, or merely an imagination of blindness, could not be remembered; but, if there was blindness to the external eye, the mind saw all its images with great distinctness, and the impress of them was left with vividness. There was a consciousness of individuality, but the actions were performed by others, who were embodied spirits of those long since departed. Lengthy conversations of a most pleasant character were held with Plato, Alcibiades, Aspasia and others. How long this state lasted, cannot be told; but sound, profound sleep must have followed, for consciousness to external objects did not return till sixteen hours after taking the atropia. Awaking took place suddenly; there was no pain, no headache, nothing abnormal but a languor and disturbed vision. The bladder had hot been emptied during these sixteen hours, and, although a large quantity of water had been drunk, but a moderate quantity of urine was passed. The vision was not clear for several days.

The dose here mentioned is small, but I usually take about half the amount of medicine needed by other persons.

Mr. Warton Jones has applied atropia to the smaller arteries, and finds it to constrict them, and states that the effects continue for several hours. This and other medical solutions he applied also to the web of the frog's foot. Other alkaloids produce opposite effects.

SECTION THIRD.

Therapeutics of Atropia.

Case 10.—A large lymphatic woman sent for me, stating that she had been suffering very severely from facial neuralgia for some days: that, within a few hours, the pain had increased to such an extent, that she feared she should go crazy. The face was suffused, the right eye blood-shot, pain very severe if the face or neck was slightly touch with a handkerchief, or brushed over with a feather; but the pain somewhat lessened if the warm hand was pressed firmly on the parts affected. By means of the hypodermic syringe, I injected 1-30 of a grain of the sulphate of atropia beneath the skin under the angle of the jaw. Within two minutes there was perfect relief from pain, but the headache of which she complained was not in the least relieved. Dilatation of the pupil of the eye on that side soon commenced, and in half an hour the pupil was very large. The pupil of the other eye, at that time, was not at all dilated, though subsequently it became dilated, but not so largely as the other. The pulse was lessened over twenty beats in the minute. I gave a large dose of aperient medicine, and sent her to bed. She slept the whole night through, said she did not dream in the least, and did not awake until her bowels disturbed her in the morning. She was well, except that her vision was disturbed.

Mitchell, Morehouse, Keen, and others, deny that the hypodermic introduction of atropia relieves pain. Such has not been the result of my experience; and Tatum, Ogle, and other medical officers of St. George's Hospital, are constantly using it with great relief.

Case 11.—A young girl suffering from toothache applied to me several times. The tooth was decayed and hollow. I applied a very small ball of cotton, slightly moistened, and dipped into sulphate of atropia. It probably contained 1-40 of a grain. It always gave instant relief. I think I used it a dozen times before I could persuade her to go to the dentist. It did not produce dilatation of the pupil.

A very large number of persons are troubled with a passive constipation of the bowels. This is especially the case with many females of delicate health and highly-nervous sensibility. With such persons, I have in many instances given permanent relief by the careful use of the sulphate of atropia. Sometimes this alone will give relief, at other times tonics and aperients are needed as well. But I can refer to a large number of cases that have been permanently cured by the following treatment:

I make a solution of sulphate of atropia in the following manner: Sulphate of atropia, 1 grain; distilled water, 5 drachms; alcohol, 5 drachms. Mix. It will be seen that to each 10 minims of this fluid there is 1-60 of a grain of sulphate of atropia.

Fleming has recommended a solution of the same strength, but he uses instead the alkaloid atropia, and dissolved it in water by adding dilute muriatic acid. This is not so well, for a larger quantity of acid is always used than is necessary, and no two druggists prepare it of exactly the same acidity. There is no need of an acid-solution, as the sulphate is soluble in water, and, if made according to the formula found on page 282, is in a chrysaline state, which the appearance alone will prove to be pure.

In the beginning the treatment for this form of constipation, I give 20 minims in about a wineglassful of water early in the morning, either before getting up, or the first thing on rising. By watching the effects of this, it will be seen whether it is necessary to decrease or increase this dose. I have found, in some instance, 15 minims produce the same effect in one person that 60 minims would produce in another. The object is, to produce the first degree of the physiological action of the medicine—dilated pupils, slight confusion of sight, a dry throat, and a little thirst. It is never advisable to go beyond this first degree of physiological action, and, by carefully watching the effects, this degree can be reached. If 20 minims produce no marked effect, it may be increased 5 minims at a time, until the proper action of the medicine is attained. This quantity should then be given once only in 24 hours, and then always upon an empty stomach. In commencing the treatment, it is necessary always to give it in the morning, because its effects could not be noticed during sleep; but, if, after it has been given safely for a week or more, and the proper dose has been correctly arrived at, the patient would prefer to take it on going to bed, there is no objection to giving it at this time, and patients frequently wish to avoid the unpleasant effects of it, and sleep while the worst effects last. It is, however, always necessary to give it upon an empty stomach, for it does not have its desired effect with any certainty if given on a full stomach. There are few medicines the effects of which are so permanent as atropia; it is not safe to repeat it in less than from 16 to 20 hours, and for this disease I give it only once in 24 hours; if given oftener, we are very apt to produce the accumulative action of the remedy, and produce more severe action than is required. The effects of one dose should nearly be spent before another is given, otherwise the accumulated action of both doses may alarm the patient. It should also always be given in solution, never in pills, for pills frequently lie in the stomach or intestines, entirely unacted upon, and may suddenly become soluble and produce alarming results. I have continued this treatment for a month, taking care that a proper effort is made to empty the bowels every day after breakfast, and allowing no excuse for neglect of this habit of regularity. In nearly all cases, in the first few days, the appetite is much lessened, but it afterward becomes much better than ordinary. As the bowles become regular in their action, the stools become softer, and hardened masses are not passed. Occasionally I am obliged to assist with a little rhubarb at meal-times. I give the best of powdered Turkey rhubarb; made into ordinary sized pills with a little honey—one or two of these pills at a meal-time, discontinuedd by egrees.

Atropia has been highly recomended in the treatment of various other diseases, as in asthma, in rheumatism, in whooping-cough, in scarlet fever, in spasmodic stricture of the urethra, in strangulated hernia, in rigidity of the os uteri, etc.; but these disorders are more easily cured by other remedies that are less dangerous in their use.

Atropia, as well as belladonna, has been very highly vaunted as *prophylatic against scarlet fever.* I have tried it many times for this purpose, but all my success, if it can be called success, has been of a purely negative character, and, in many instances where I have used it, it has had no effect in preventing the disease. Children bear a larger dose than adults, and the effects pass off more rapidly. (Med-Chir. Trans., vol. xlii.)

To the ophthalmologist, atropia, or its congener, daturia, is indispensable.

A solution dropped on the conjuntiva dilates the pupil, and this dilatation can be varied in quickness, in intensity or duration, according to the strength and the manner in which the solution is applied. If it is desired to dilate the pupil moderately, and have the effects pass over quickly, a solution of one grain of the neutral sulphate of atropia in ten drachms of water may be used. A few drops of this may be put into the eye, and allowed to remain for one minute, the eye-cup, with cold water, may then be used. Such dilatation takes place slowly, and generally passes over in from fourteen to twenty hours. But if it is necessary to dilate the pupil more fully, three grains of the neutral sulphate may be dissolved in ten drachms of water, and a few drops of this solution put in the eye. In a few minutes this will dilate the pupil, and in an hour the pupil will be very largely dilated, and the effect will not pass over for twenty-four hours, and frequently it lasts from two to three days.

As the pupil dilates, the sight of the eye soon becomes impaired, there is a staring appearance, the lustre is dimmed, and after some hours the conjunctiva frequently assumes a dull, dirty-bluish tinge. It is not that the eye is congested with the red blood discs, but it looks as if congested with the serum of the blood.

If the atropia is put into one eye only, the sight of that eye only is impaired, and print that cannot be distinctly read with this eye, or with both, may be easily read if this eye is covered. The print seems smaller to the atropised eye than to the other, and although no difference is frequently observed with objects at a distance, near objects are not as clearly defined with the atropised as with the other. This effect is due to the wide dilatation of the pupil, and the inability of the eye to adapt itself to near vision. Many refer it to diminished sensibility of the retina; and, although others are not willing to acknowledge this to be any cause of the impairment of vision, I think there is but little doubt the altered state of the delicate arteries of the retina had a decided effect in confusing or impairing the vision. But the dilated state of the pupil is undoubtedly the principal cause; for, in an imperfect light, or in twilight, the impairment in vision is but little noted; the pupil does not then, as in a bright light, receive too many and too divergent rays of light. Again, if a piece of cardboard is placed against the eye, with a hole in it smaller than the dilated pupil, the vision is much improved. But that the vision is materially altered in the atropised eye is proved by looking through a telescope; for the eye, that may be so thoroughly atropised as to be blind in all ordinary ways, can clearly distinguish through the telescope, if the focus is rightly adjusted by lengthening the instrument. In the use of the microscope also, the same thing may be noted, for the atropised eye can clearly distinguish if the object is removed a little farther from the instrument.

The atropised eye bears the sun's rays better than the other. Upon dead animals atropia produces no action on the pupil. The *modus operandi* of atropia upon the eye has been discussed by nearly all the eminent ophthalmologists and anatomists, and, although volumes have been written upon the subject, it is yet "vexata questio." Upon this point I have not room to print within a reasonable space the various opinions expressed; I, therefore, act under advisement, and leave all that I have written upon the action of atropia upon the eye, and refer to Fleming's admirable paper "On the Action and Uses of Atropia;" to the researches of Budge, Brown-Séquard, Von Graëfe, Bernard, Harley, Bell and others; to Donder's work "On the Anomalies of Accommodation and Refraction of the Eye," which contains minute and useful information on mydriatics, and also on the antagonistic action of myotics.

Atropia has been used quite extensively by the German physicians in the treatment of epilepsy. Lussana cured a patient suffering from true cerebral epilepsy, and also a case of chorea in a maniac. Namias used atropia in doses of 1-24 of a grain in epilepsy, and in other spasmodic diseases, and obtained, by careful and prolonged use, marked success. Volunterio gave 1-12 of a grain of atropia every two hours, with the best results in epilepsy. Lange cured three men who had suffered several years from epilepsy, by small doses of atropia continued fourteen weeks; they had no relapse. He also treated in the same manner six females suffering from epilepsy; of these two remained uncured, one died and three were cured after five to eleven months' treatment. Reil says of the action of atropia in epilepsy and chorea: "My own experience authorized me to say that atropia in both the diseases under consideration is not only a safe palliative means, but often a true and curative means,* especially when the disease is not yet inveterate and the individuals are young, particularly in young girls at puberty."

---

*Belladonna and atropia are, according to the Medical Times and Gazette, in favor at the Hospital for the Epileptic and Paralyzed, as remedies for epilepsy. Under these remedies the patients are benefitted, and though many cases are not cured, the number of fits is often diminished and the patient's general condition much improved. Many who have suffered for years are rendered capable of resuming a comparatively active life. The prescription generally used is extract of belladonna a quarter of a grain, quinine one grain, in a pill three times a day. Of atropine, the 1-120 of a grain is given three times a day. Both are gradually increased in dose, yet the only physiological effects observed are dryness of the throat and defective vision. The latter is in consequence of the ciliary muscle being partially or totally paralyzed, by which the power of accommodation is impaired or altogether lost. One method of Dr. Brown-Sequard is, to inject a solution of atropine and morphia into a part from which an aura starts. A solution containing 1-60 of a grain of atropine and ¼ of a grain of morphia is injected with Wood's syringe, sometimes with excellent results. He believes that belladonna and ergot both act by producing contraction of the blood-vessels; the former on those of the brain, the latter on those of the spinal cord. In paraplegia from myelitis, he gives a pill containing three grains of fresh ergot and a quarter of a grain of the extract of belladonna, three times a day. The action of belladonna in arresting the secretion of milk, and causing dryness of the throat, may be explained on the hypothesis of its diminishing the supply of blood to those parts.

Thus, then, up to this point, five facts appear proved:

Professor Oppölzer, in Vienna, in a case of inflammation of the radial nerve, for which quinia, Fowler's solution, colchicum, iodine, and other remedies, had been tried in vain, employed repeated subcutaneous injections of atropia, and removed the pain and the thickening of the nerve.

Bouchardat, Croseria, and Lussana, used atropia in intermittent fever successfully, for which quinia had been given in vain. Lussana treated with it two cases of tertian intermitting fever, and says concerning it the following: "I beg the attention of physicians to the cure which I have obtained, by atropia, of two cases of intermitting fever existing for two months, in which the sulphate of quinia had been given to no purpose. Half a grain of atropia sufficed for the cure, and with $\frac{1}{8}$ or even 1-14 of a grain, such a modification of the attacks occurred, that the peculiar curative action of the atropia was not to be mistaken. When it is considered that atropia is an indigenous remedy, and that with it the sick can be cured with little cost, whereas the treatment by quinia in Europe cost millions, it is proper that the experiments published by me should gain the attention of physicians."

It is necessary to dwell for a few moments upon the duration of the effects of atropia upon the system.

The effects of atropia remain longer in the system than any medicine of its class. If we compare it with the narcotics, we find that they are all eliminated from the system in a quicker time than atropia. If we compare it

---

1. That, in cases of chorea, extraordinarily large doses of belladonna and atropine are tolerated.
2. That the drug is absorbed into the blood, and, therefore, that the tolerance of it is not attributable to its non-absorption, nor to its being decomposed in the stomach.
3. That it does not accumulate in the blood, but passes out of the system with the urine and fæces, and probably with the other excretions.
4. That it does not exercise that amount of control over the choreic spasm which would have been expected from the readiness with which it is tolerated by the system.
5. That the tolerance of the remedy is not in proportion to the severity of the choreic symptoms.

The question, therefore, arises as to whether the existence of chorea had any part in producing tolerance of the drug, or whether that tolerance may not have been due to some other circumstances? With the view of determining this point, the author administered the extract of belladonna to two convalescent children, whom he kept in the hospital for the purpose. To the one, aged seven, he ultimately gave thirteen grains of the extract daily, and to the other, aged ten, twenty-eight grains daily, without producing dryness of the tongue or fauces, or any symptom indicative of the action of belladonna beyond some temporary dilatation of the pupils.

with the sedatives, we find the same results. Medicinal doses of atropia of 1-20 of a grain will produce effects that will not subside in less than twenty-four hours, and frequently they last for double that time. Caution, therefore, need be used in administering this remedy, and doses must not be repeated too often, otherwise the system may be overwhelmed by the accumulated influence of one dose, given before the effects of previous doses have sufficiently passed over.

Unless patients can be very closely watched, it is better not to repeat doses of atropia oftener than once in twenty-four hours.

Of the various preparations of atropia, the best, and that most easily obtained, is the neutral sulphate. Atropia itself need never be used where one of its soluble salts can be obtained. The formula above given for the crystallized sulphate of atropia places it within the power of any good pharmaceutist to prepare a perfectly pure, and a perfectly neutral salt, and one that is readily soluble in all menstrua in which it would be necessary to use it. The advantage of purchasing it in crystals is, that one is assured of its purity much more readily than if it was in powder.

For the use of ophthalmologists the *neutral* sulphate is the only preparation that should be used, and no apothecary has a right to dissolve the pure alkaloid by adding free acid for that purpose. The alkaloid is not dissolved without an excess of acid, and frequently a large excess, and this free acid always becomes an irritant to the eye, whereas the application of the *neutral* sulphate does not inflame. No ophthalmologist would order any thing but the *neutral* sulphate, and any apothecary who would prepare the acid sulphate is deserving of severe censure. Atropia, as well as all other alkaloids, should never be given in pills, but always in solution. Disks of paper and of gelatine properly atropised are to be purchased at druggists'.

In its effects upon the system, atropia may be classed midway between narcotics and sedatives. Of the class narcotics, together with stramonium and hyoscyamus, it most nearly approches the sedatives. The primary stimulating action is very slight, and it soon passes over; the anodyne effect is soon felt, and a sedative effect upon the heart is soon noticed. It is not soporific, but deliriant. It does not constipate the bowels, and in medicinal doses it does not diminish the secretions. In poisonous doses, we see, by referring to cases quoted, that it checks the secretion of urine by causing congestion of the kidneys. It always produces dilatation of the pupil of the eye; generally a peculiar dryness of the throat accompanied with thirst. In full doses it is nearly always a deliriant, exciting and leading the mind astray, presenting unreal objects, and imaginary fantasies; hallucinations supply the place of realities, and seem to be more pernament than realities. Unlike soporifics, the mind is not extinguished, there is no perfect loss of consciousness, but the senses are deranged and deluded. Like the sedatives, it deranges or destroys the action of the vagus nerve.

"Hahnemann and his followers have made the assertion that the administration of belladonna produces a rash similar in appearance to scarlatina, and, upon this assertion, they use belladonna as a cure for scarlet fever. Many eminent medical men accept this assertion as a fact, and, in one of our latest and best works on 'Skin Diseases,' the author, in enumerating articles that produce an erythema, states the reiterated assertion that 'belladonna produces a rash of rosy hue.' Dr. Fuller, in a paper on the 'Action of Belladonna,' with a view to solve thisquestion, gave belladonna to a large number of patients for some months, 'in doses varying from a quarter of a grain of the extract up to seventy grains daily.' The patients were examined four or five times daily, and the occurrence of any rash or eruption was carefully looked for. But in all these cases no rash or eruption was perceived."

I have watched a large number of patients, both in hospital and in private practice, where belladonna or atropia has been used with a like negative result. There are many unfounded assertions on the actions of medicines, but probably none so wide-spread and utterly groundless as this. It is well worthy to be classed with the other "facts" of Hahnemannic "provings."

SECTION FOURTH.

Toxicology of Atropia.

The effects of over-doses of atropia have been plainly shown in section second. The toxicology of atropia is susceptible of two divisions:

1. The means necessary to be employed to counteract the effects of over doses, in other words, the antidotal

effects. 2. The means of detecting the alkaloid in cases of poisoning by it, as well as the means of recognizing the symptoms of poisoning.

It was long supposed that the vegetable alkaloids had no antidotes, and that antidotes were only found in that class of remedies that could be rendered inert by chemical decomposition; but the therapeutist has remedies that act as antidotes to symptoms produced by other remedies. The antagonistic actions of belladonna and opium are of this class. As the science of therapeutics makes advances, these antidotal powers will be better understood.

We see, by reference to cases 1, 2, 3 and 4, where atropia was administered in full doses and all fluids withheld, that the effects of the medicine were much more severe than when diluents were freely given. We see by these cases that the free use of water alone enabled the system to recover from a large dose, a dose that was large enough to destroy life where diluents were entirely withheld. We see also in these cases that the kidneys were highly congested and unable to eliminate the urea.

If a large dose of atropia has been taken, and time sufficient has elapsed to have it absorbed into the system, we should do more good to give diluents freely than to give emetics as usually recommended.

The mutual antidotal powers of opium and belladonna have been freely discussed in the medical journals, and many interesting cases are recorded. Of these the most numerous and perhaps the most interesting are reported by Dr. Norris, in the American Journal of Medical Sciences, October, 1862, p. 395. Twenty-seven cases are here given of belladonna-poisoning treated by opium, and of opium-poisoning treated by belladonna.

Another interesting case is reported in the same journal, for April, 1866, p. 434, wherein 1-48 grain of atropia produced violent symptoms which were almost immediately relieved by morphia. In the Philadelphia Medical and Surgical Reporter, for September, 1866, p. 225, a case is reported where 3 oz. of laudanum were taken, and recovery took place by free use of belladonna. Another case of the same description is recorded, American Journal of Medical Sciences, April, 1856, p. 541. In the same journal, for January, 1861, p. 288, a case is reported where two grains of atropia were taken, and the patient recovered. I do not believe that in this instance the atropia was pure. There are several instances recorded where a grain of atropia was taken, producing alarming symptoms, from which the patient ultimately recovered.

A paper by Dr. Downs, on the antagonistic effects of opium and belladonna, is to be found in the Transactions of the New York State Medical Society for 1866.

Dr. Ogle, in the St. George's Hospital Reports, relates a case of trismus that was relieved by subcutaneous injection of meconate of morphia and sulphate of atropia combined. Dr. Tatum and others in this hospital are in the habit of using these two alkaloids in combination, and they state that they find more benefit from their combined action than from either substance alone.

There is, upon the whole, abundant evidence to prove that opium and belladonna, morphia and atropia, are mutually antidotal.

In the use of atropia for the purpose of dilating the pupil, the action of the atropia can be more quickly overcome if a solution of sulphate morphia, containing four grains to the ounce of water, is applied to the eye by means of the eye-cup.

A solution of calabar-bean, or the paper or gelatine of the same, produces an antagonistic effect to atropia when applied to the eye, and an eye that is atropised quickly recovers from its dilatation if the calabar-bean paper is applied within it, and, if a little stronger than the atropia, it will soon cause contraction of the pupil.

Calabar-bean has been used as an antidote to atropia, and, it is reported, with success.

On the second division of this subject—"The means of detecting an alkaloid in cases of poisoning by it"—there s no question in the whole science of medicine that needs more thorough research than this, and I feel that time may be well spent in experimenting and in bringing together facts which will elucidate the difficult and yet unsettled points of the physiological action, the pathological conditions, the chemical reactions, and microscopic appearances, which are necessary to a full understanding of the medico-legal science in each case of poisoning.

Many medical men, and most of the public who compose a jury, suppose that a poison must necessarily be detected by a chemist, before a criminal should be convicted of poisoning. This error has arisen from the fact that, until within a few years, the corrosive metallic poisons were the only ones used by poisoners, and these poisons were always readily found by chemical means. But the more educated part of the community now know, that there are poisons that cause death more quickly, less painfully, and with more difficulty of identification, than was formerly the case. The chemist has given to the medical man the most powerful vegetable alkaloids, several of which endanger the life with fractions of a grain. To what extent has the toxicologist kept pace with the chemist, and how far is he enabled positively to assert the presence or action of an alkaloid in a case of poisoning? As yet, we have not many cases of poisoning with the alkaloids on record, but, as these powerful agents become more commonly known, they will be more frequently used. With what degree of certainty are we able to detect them?

Two interesting cases, with an opposite termination have occured within a few years in England, and the points raised in these cases are just such as need elucidation in all cases of poisoning by the alkaloids, and we will endeavor to clear up some of these doubtful points.

On the trial of William Palmer for the poisoning of Cook by strychnia, upon a careful chemical investigation after death, no strychnia was discovered; but the pathological conditions which strychnia induces, and the unmistakable physiological actions of the alkaloids during life, were present. The jury, satisfied with the scientific acumen of the therapeutist, found the prisioner guilty, and he was punished for the offense. The toxicolologist here could only prove one link in the chain of evidence—the action of the medicine—the presence was not found; it was only proved to *have* existed.

The other case to which I refer was the trial of a surgeon by the name of Sprague, living at Ashburton, in England, who was accused of placing atropia in a rabbit-pie for the purposing of poisoning his wife. The physiological action of atropia was produced. A portion of the pie and some of the vomited matters were subjected to chemical analysis by Mr. Herapath, of Bristol. Mr. Herapath testified that atropia was discovered by him in the pie as well as in the vomited matters. The symptoms, also, under which the poisoned person suffered, corresponded, in his opinion, with the symptoms produced by poisoning with atropia. The methods of analysis resorted to were described to the jury by Mr. Herapath, and a rigid cross-examination was resorted to by the prisoner's lawyers; but Mr. Herapath demonstrated the presence of atropia. The ground taken for the defense was, that rabbits and some other animals occasionally eat belladonna-leaves with impunity, and, therefore, there might exist in the flesh of this rabbit sufficient atropia to produce all the effects described. It was not proved that this rabbit had eaten belladonna, but such a thing might have happened. The experiments of Runge, of Berlin, were quoted, and much stress laid upon them. Some forty years ago, Runge, *secteur* in the University of Berlin, stated in a paper published in the Journal de Pharmacie, x. 85, that he had fed a rabbit for eight days on the leaves of belladonna, datura, and hyoscyamus, and that the animal suffered no inconvenience. He stated, moreover, that the poison had not escaped absorption, for it was found by the physiological test—viz., the dilatation of the pupil of a cat—to be present in the rabbit's urine. The latter fact would only show that some of the alkaloid—perhaps a minute portion—had been absorbed; but a further observation showed that in reality all had been taken up, for, when the rabbit was killed, the residue of the food in the rectum was found, by the same test, to be completely free from atropia.

Mr. Sprague was acquitted. This result seems to have been arrived at by mystifying the jury, who could not distinguish between the lawyer's special pleading and the facts presented by a scientific chemist. As a doubt existed in their minds, the prisoner had the advantage of it.

In nearly all our works on materia medica, these experiments of Runge are quoted, and have been generally accepted as accurate, or at least as probable, as some of the ruminants have been known to eat and suffer no inconvenience from medicinal plants that produce dangerous effects upon man.

"Some years after Runge's paper had been published, there appeared (in the Archives Générales, xviii, 302) an account of some experiments made by M. Reisinger, who stated that the dose of atropine and hyoscyamine—in his opinion identical substances—which produced in half an hour symptoms of poisoning in a puppy of three months' age, produced no effects at all on young rabbits, and he concludes his paper with saying that 'ces animaux paraissent insensibles à l'action interne ou externe de ces substances.' "

Dr. W. Ogle, lecturer on physiology at St. George's

Hospital, with a view to elucidate this case, has performed a number of experiments upon rabbits both with belladonna and atropia. He says:

"Can rabbits eat belladonna with impunity?

"*Experiment.*—In the beginning of last August I was supplied, by the kindness of Mr. Squire, with a large quantity of fresh-cut belladonna. I first satisfied myself that the leaves contained atropine, by applying a crushed one to the eye of a kitten for a few seconds. The pupil was soon enormously dilated. I then fed a healthy young rabbit, about four months old, for six days exclusively on the plant. The animal ate the belladonna with the greatest readiness, consuming all the leaves, blossoms, and young green shoots, but leaving the harder stems and roots. It consumed several times its own weight during the course of the week. During the whole time it remained perfectly well. The pupils were very large at the outset and remained so throughout. The only symptom observed was, that, in running about, the animal occasionally gave a comical kick out with its hind-legs, which was taken at the time, by myself and others who watched the rabbit, for an accidental exaggeration of a movement often seen in rabbits, but which I have now no doubt was in reality due to the belladonna. After six days, my stock of belladonna being exhausted the rabbit was killed. The viscera were quite healthy, the stomach and intestines full of *dêbris* of green leaves, the bladder empty.

"The rabbit, after skinning and cleaning, was given to a dog, in order to ascertain whether the flesh was in any degree poisonous. But, though the dog was kept for three whole days from all other food, it refused to eat a morsel of the rabbit, so that this part of the experiment came to nothing. I was not aware till then that some dogs will undergo starvation rather than touch the flesh of rabbits.

"This experiment corroborates that of Runge, and shows clearly that a rabbit can live, at any rate, for six days on the leaves of belladonna without any inconvenience.

"2. When a rabbit is fed on belladonna, is the atropine absorbed?

"3. Is atropine as distinctly poisonous to rabbits as it is to man?

"*Experiment* 1.—I administered to a healthy rabbit, three months old, a grain of sulphate of atropine dissolved in water. The rabbit's mouth was held open and upward, and the solution passed down the œsophagus in a tube, great care being taken that none escaped. The animal was watched carefully for many hours consecutively, and then visited and examined at frequent intervals. No other symptom was produced than dilatation of the pupils.

Experiment 2.—To another rabbit of the same age, two grains of the sulphate of atropine were administered in the same way. Dilatation of the pupils was produced, and also the symptom that I noticed before in the animal fed on belladonna, viz., a slight exaggeration of the action of the hind-legs now and then, when the rabbit was running about. This symptom had not the least resemblance to muscular paralysis. The rabbit ran just as well as ever, and the movements of which I speak only occurred now and then at intervals as it ran. In all other respects the rabbit seemed perfectly well, and ate its food as usual."

It results from these experiments that a rabbit of three months' age can take by the stomach, without inconvenience, a dose of atropine which would kill a man. I now come to the more severe test of hypodermic injection.

"*Experiment* 3.—To a rabbit, about three months and a half old, I administered, by subcutaneous injection in the back, one grain of the sulphate of atropine. The rabbit, in a quarter of an hour, began to lick its forepaws, as though there was some uneasy sensation in them. After three-quarters of an hour it was seen again to lick its forepaws, as though there was some uneasy sensation in them, and then to drum with them rapidly for a few seconds, and this same spasmodic drumming occurred some half dozen times in the course of the next three hours. There was also noticed now and then, when the animal was running about, the same furious 'kick out' with the hind-legs which I have before mentioned as occurring in the rabbit fed on belladonna. There was no muscular paralysis whatever. The animal ran about as well as before the injection, playing with another rabbit, and from time to time nibbling at some lettuce-leaves. The uneasiness in the paws was not manifested in any way after four hours, and after that time no other symptom was observed than dilatation of the pupils, which began soon after the injection was made, and lasted till the next day."

I should say that I have produced the same symptoms, viz: dilatation of the pupils, drumming with the fore-paws, "kick out" with the hind-legs—with half the dose used in this experiment. On the other hand, these symptoms have sometimes been so slightly marked as almost to escape notice, when the dose injected has been much larger.

"*Experiment* 4.—I injected three grains of the sulphate of atropine into each of two rabbits, one six months, the other three months old. In each, the same symptoms ensued as were described in the last experiment, and, notwithstanding the tripled dose, there was no greater severity in the effects produced."

In the next experiment Dr. Ogle injected three grains and a half of the sulphate of atropia in the back of a rabbit, with the same effects as those last described. A few drops of urine, passed by the rabbit an hour and a half after the injection, were put into the eye of a kitten and produced marked dilatation. In the next experiment five grains of sulphate of atropia were used with a like result, the urine producing the same effect upon the eye of a cat.

Dr. Camus has experimented with atropia upon rabbits, and he says that one gramme—15½ grains—constitutes the minimum dose fatal to a rabbit. Dr. Ogle has produced the same result with three grains.

It will be seen, by these experiments of Dr. Ogle's, that rabbits can tolerate enormous doses of atropia—doses large enough to kill several men.

Dr. Ogle draws the following conclusions:

"1. That a rabbit of middle age can live for, at any rate, six days exclusively on belladonna without inconvenience.

"2. That a rabbit can tolerate enormous doses of atropine administered either by the stomach or by subcutaneous injection, and that this tolerance is not due to non-absorption of the poison.

"3. That this tolerance increases with the age of the rabbit.

"4. That dilatation of the pupils is, however, produced just as readily, if not more so, in an old rabbit, as it is in a young one."

These experiments of Dr. Ogle's are exceedingly valuable; but it was a great misfortune that some chemist was not associated with him to ascertain how much of the alkaloid could be detected in the urine, the intestines, and the tissues of the rabbit, if killed at any given time during the experiment. As the matter now stands, we are but little better off than when Runge left it: the knowledge that we possess is but confirmed. The alkaloid is without doubt absorbed, and the question now to be answered is, is the meat of such an animal fit for human food, and how much of an alkaloid can be retained in the flesh? For toxicological purposes we need not at present discuss how much of an alkaloid can be retained within the flesh of an animal when an alkaloid is given by hypodermic injection, or by the mouth; but the point of importance is, how much alkaloid may at any time exist in the flesh of an animal that has fed upon a poisonous vegetable?. If, upon a case of poisoning, a plea is to be urged that the poisoned person partook of meat from an animal that was poisoned from eating food that was innocuous to it, but that was poisonous to man, we need to know with great exactness to what extent and in what form that poison may be found in the flesh of the animal. We need also to be able to distinguish the poison that may exist in the flesh of such animal eating such poisonous vegetable, from a poison that may exist by being given as an alkaloid to an animal while still living, either by way of the mouth, or by injection of the alkaloid subcutaneously. Such questions open an entirely new field in medico-legal science.

These experiments of Runge, confirmed and largely amplified by Ogle, prove that rabbits can eat belladonna with impunity, and it is equally probable that hares share this immunity from danger; but it is not at all probable that these animals would in a state of nature eat sufficient to make their flesh dangerous to human beings. But, in this case of Sprague, the courts have established a precedent, and have acknowledged that such probability exists. Does this immunity exist with rabbits only? Is belladonna the only vegetable poison that may be eaten without injury? May not these animals have a like immunity with hyoscyamus, digitalis, aconite, lobelia, etc., etc.? I have tried the following:

Experiment 12.—To a large she-goat, having two kids by its side, I presented some freshly-gathered belladonna; the goat refused to eat it. As the goat was tied where the grass was very scarce, I went to a field and gathered a quantity of fresh grass. This I fed to the goat, mingling with it the belladonna; both were eaten together until she had eaten two ounces of the leaves of the belladonna. In two hours I again saw the goat; the kids had been suckling in the mean time. I could see no marked dilatation in the pupils of the eyes in either the old goat or the kids. I got about an ounce of her milk, which was fed to a kitten, without any ill effect or without dilatation of the pupils. The next day I gave four ounces of belladonna-leaves in the same way. In four hours, upon returning, I found the pupils of the eyes in both the old goat and in the kids dilated, but I observed no other effect.

About a week after, I gave four ounces of dried hyoscyamus alone to this same goat, without observing dilatation or any other symptom follow it.

To one of the kids I gave one ounce of dried digitalis, without producing any noticeable symptom; to the other I gave about ¾ oz. of hyoscyamus, with the same result.

Experiment 13.—I passed down the throat of a kid, about four months old, a bolus containing one drachm of extract of belladonna. In less than an hour the pupils were very widely dilated, and the kid did not play or eat. It remained lying down for some hours. When I saw it the next day, the pupils were still dilated, but in every other respect it seemed quite well.

Experiment 14.—To another kid, of about the same age, I gave one drachm of extract of hyoscyamus. I did not see that it produced any effect whatever.

Experiment 15. To the same kid mentioned in experiment 13, I gave 6 drachms of extract of belladonna. It produced about the same effects as those mentioned in experiment 13. The goat was not in any way injured, the only unpleasant effect being the enormous dilatation of the pupils. All the urine that this kid made for 15 hours after taking the bolus was saved. It amounted to 19 drachms. This, with a syringe, was thrown into the stomach of a young dog, about four months old. Within ten minutes the pupils of the dog's eyes were widely dilated. The dog was locked up and not again seen for 16 hours. It was found dead. The stomach was empty, the pupils of the eyes were enormously dilated, the heart was filled with black, thick, uncoagulated blood. The bladder contained a small quantity of urine. A few drops of this were placed into the right eye of an old dog; dilatation took place, which did not pass over for three days.

This urine, amounting to 180 grains in weight, was put into a watch-glass, and carefully evaporated. The residue was washed repeatedly with small quantities of strong alcohol, filtered, and again evaporated on a watch-glass. The residue was washed with a small quantity of chloroform, and drawn up into a small pipette; it amounted to ten minims. A drop of this chloroform solution placed upon a glass slide, and mixed with a drop of "an aqeous solution of bromohydric acid, saturated with free bromine," gave a peculiar agitated appearance under the microscope, with yellowish streaks, which again became colorless and again reappeared; as the chloroform evaporated, a yellow amorphous precipitate continued to appear, which after a while assumed a crystalline form—these crystals first appearing upon the edges, but being more distinct and more perfect in the centre.

Another drop of the solution, mixed with a drop of alcoholic solution of carbazotic acid, gave the same peculiar agitated appearance during the evaporation of the chloroform; a yellow precipitate soon formed, which, stirred with a piece of fine silver wire, yielded distinct small crystals.

With a solution of terchloride of gold, a pale-yellow precipitate formed, after a while assuming a crystalline form.

With a solution of iodine in iodide of potassium, a reddish-brown precipitate formed. (Microscopic drawings of these crystals were shown to the alumni.)

The heart of the dog, together with the blood it contained, and that which could be collected from the large vessels, was cut in pieces and put into a beaker-glass, with four ounces of strong alcohol and ten minims of pure sulphuric acid. This glass was held in hot water for ten minutes, and constantly stirred with a glass rod. The fluid portions were strained through fine muslin and evaporated to one ounce. This was filtered, evaporated to half an ounce, rendered distinctly alkaline by liquor potassæ, and then evaporated to dryness. This was three times washed with chloroform, and the chloroform allowed spontaneously to evaporate. The watch-glass was carefully washed with fresh chloroform, and this was drawn up into a pipette.

It yielded no evidences of atropia with either of the reagents above mentioned.

Four ounces of the flesh of this dog, taken from the hind-leg, were treated in the same manner as the heart and the blood. No evidences of atropia were to be discovered.

Experiment 16.—An old male rat, caught alive, was placed under the influence of chloroform; a grain of the sulphate of atropia in solution was thrown, by means of a proper syringe, into the stomach, and a ligature was placed around the penis, so that no urine could be lost.

The rat showed the usual symptoms of poisoning by atropia, and died in a little over four hours. He did not vomit. The rat was skinned and opened. The stomach was found empty, and the mucus membrane reddened in patches. The intestines were not examined. The heart was full of black, thick blood. The kidneys were both highly congested. The bladder was full; it was tied and removed. The lungs were dark-colored, and the pulmonary arteries were filled with dark blood. The skin, the head, the stomach, and intestines were thrown away. The body was split in half, and one part given to a young active dog. The dog was watched for 12 hours and no ill effect was noticed; the pupils of the dog's eye were not dilated.

The other half of the body, together with the heart and the blood it contained, was treated in the manner recommended by Prof. Wormley, and the residue subjected to the reagents used by him for the detection of atropia. I could discover no evidence of atropia.

The bladder was opened, and found to contain five drachms of urine.

Two dogs were selected, and a drop of this urine put into the right eye of each; marked dilatation took place in the eye of both, but it was not excessive, and had all passed over when next seen—about 14 hours.

The urine was subjected to analysis in the same manner as that mentioned in experiment 15, and with a like result, showing the presence of atropia.

Experiment 17.—A very large, strong male rat was caught in a trap. He was a coarse, dirty-looking animal, so, before handling him, he was put into warm water, and repeatedly thrust under it to wash him well. Chloroform was administered. Upon taking him out of the cage, a large, yellow circular crust was found upon the head, running down upon the neck, another crust of the same character was found upon the right hip, and another smaller one upon the outer portion of the right fore-leg.

These were the cup-shaped crusts of porrigo favosa, similar to those described by Dr. Draper, of New York, to Bazin, as existing upon mice caught by him, and proved by him to be true porrigo by transmission to a cat, and from the cat to children. (A pen-and-ink sketch of the microscopic appearance of a part of this crust was shown to the alumni.)

A subcutaneous injection of half a grain of sulphate of atropia was used; in a few minutes the pupils of the eyes were found to dilate, and as the rat revived from the influence of the chloroform the pupils could be seen steadily to dilate. In 15 minutes the subcutaneous injection was repeated upon the other side of the animal. The rat was so thoroughly under the influence of the atropia, and the pupils were so widely dilated, that he made no attempt to escape when placed upon a shallow box on the table. In 15 minutes more the subcutaneous injection of half a grain was repeated. In one hour and five minutes from this last injection the rat died. He was immediately skinned, excepting the head and feet, which were thrown away with the skin. The stomach was empty, but was deeply congested, the heart was full of dark, thick blood, the lungs were dark-colored, the kidneys were deeply congested. The whole carcass of this rat, divested of head, stomach, intestines, heart, lungs, kidneys and bladder, was given to a large, coarse dog. The dog ate it readily. He was immediately tied to the table and closely watched. The pupils were but very little, if any, dilated, and the dog suffered no inconvenience from his meal.

The carcass of this rat was in the same condition that the carcass of the rabbit, in the pie we have mentioned, would have been had the rabbit fed freely and fully upon belladonna; it was in the same state that the carcass of the rabbit was that Dr. Ogle fed upon belladonna-leaves for a week, and which his dog refused to eat. Within 45 minutes, one and a half grain of sulphate of atropia was given hypodermically, and the rat lived an hour after the last injection, evidently long enough, as the result proves, to have eliminated or to have destroyed the activity of the poison.

In warfare the ship-builder has constructed heavily plated vessels, that they may approach without danger near to fortifications and destroy them. The artillerist, in self-defense, has not been idle or ignorant, and has made, to meet these iron-clad monsters, balls of enormous weight and of enduring hardness, propelled through rifled cannon, which are capable of holding sufficient powder to force the ball with such velocity that it will enter and rend the heaviest plate-armor.

The toxicologist has not been as successful as the artillerist. Fortunately, the knowledge of the alkaloids and and the skill to use them are as yet confined to the better educated class of the medical profession; but, as they become more common, and bad men learn their power, they will undoubtedly be more used for purposes of poisoning. When it is known that a subcutaneous injection of a few drops of poison will take a life, leaving no trace whatever of the cause, and which no toxicologist can discover, it is greatly to be feared that such means will frequently be used. Everything, then that can be done to elucidate the physiological action of these alkaloids, the pathological conditions they leave of their action, the chemical reagents that will detect them in their minutest quantity, and the physiological action of the collected secretions, or collected poison, is of the utmost importance to the safety of society. It behooves us of the profession frequently to look and inquire how far our knowledge has advanced, and to give every aid and assistance in our power to those who make a special study of these matters.

Let us review what we know of the toxicology of atropia.

Atropia and strychnia are probably the most easily detected of any of the vegetable alkaloids, owing to well-known peculiarities of their physiological action. The first invariably causes dilatation of the pupil of the eye; the latter causes its own peculiar spasm. As we have seen, in the preceeding pages, every man or animal to whom atropia has been administered has exhibited this characteristic dilatation. In the rabbit-pie, analyzed by Herapath, he proved the presence of atropia by this well-known physiological action of the alkaloid upon the eyes of animals, touched with a little of the substance recovered from the pie, and from the matters vomited by the victim. Ogle collected urine from rabbits dosed with atropia, and with it produced the physiological dilatation on the eye of a cat.

In experiment 15, we see that the urine, collected from a goat dosed with belladonna, dilated the pupil of the eye of one dog when placed in it, and, when passed into the stomach of another dog, destroyed its life, and atropia was found in sufficient quantity in the urine of the poisoned dog to be recognized by the chemical reagents pointed out by Wormley; and that a drop of this urine also produced dilatation in the eye of another dog.

In experiment 16, we find that the urine of a rat, poisoned with atropia, caused dilatation in the eyes of two dogs.

If we are not, then, always able to recognize atropia by chemical means, in cases of poisoning by it, we have strong probabilities of recognizing it by the "physiological test." Hyoscyamin and daturia produce the same effects, but daturia and atropia are identical in their chemical reactions and physiological effects.

Sprague was liberated on the plea that the rabbit in the pie might have fed upon belladonna, and thus have become poisonous. Herapath recognized atropia in the pie. Ogle did not carry his experiment far enough to ascertain if the rabbit, fed by him on belladonna, was rendered poisonous thereby. In experiments 15, 16, 17, where atropia was given to animals, and death caused by its action, the flesh of the poisoned animal was not poisonous, and failed to yield chemical evidence of being poisoned. Wormley, however, was more successful, doubtless I should say more skillful, for he recognized atropia in the blood of a dog poisoned by fluid extract of belladonna, and also in that of a cat. But there is a difference in these cases of Prof. Wormley and those I have presented, and I think an important difference. In the first instance, he killed the dog an hour and a half after giving the poison, and the cat died in three minutes after the poison was injected into the lungs.

In the cases I presented, all the animals lived for some hours, and died slowly from the natural effect of the poison.

It will be seen, in nearly all instances where I have experimented *with excessive doses*, that I have been enabled to prove the presence of the poison in the urine where I could not discover it in either the blood or flesh. The methods of analysis and the reagents used are those so ably pointed out for our use by Prof. Wormley.

It will not do to dismiss this subject of the flesh of animals becoming poisonous to man, or to other animals, by food the animal may eat; we have too many facts before us to prove this to be the case.

The "trembles," or "milk sickness," of our Western

States is a strong evidence of this kind of poisoning. The flesh, the milk, the butter, or cheese, from one of these poisoned animals always produce sickness in any animal that eats it, and often death, and many men have died from cutting themselves in skinning an animal suffering from "trembles."

All who have yet written upon this subject assert that the cause of this sickness is a vegetable. Drake supposed it to be the *Rhustoxicodendron*, others have asserted that the *Esculus Ohioensis* is the cause, and latterly the *Eupatorium ageratoïdes* is said to produce the disease.

The "foot poison" is another instance of the same kind; several of the fungoid growths produce their own peculiar effects. The partridge-berry is said to render the flesh of birds poisonous, and the flesh of sheep that have eaten the laurel is said to produce unpleasant symptoms.

We cannot, then, deny that the flesh of wild or domestic animals may be poisonous to man, from some poisonous vegetable eaten by the animal. We see that rabbits and goats can eat belladonna without injury to themselves, but there are very few instances on record where persons have been atropized by eating meats.

Since the introduction of alkaloids, toxicology has become a science, and investigators in various parts of the world have attained an accuracy in discriminating the the different alkaloids that is truly surprising. Wormley in his incomparable work on "The Micro-chemistry of Poisons," points out the characteristic distinguishments of the various alkaloids and their behavior with different reagents. He shows infallible means of recognizing, not grains of poisons, but 1-500,000 part of a grain, and, with a woman's delicacy of touch and artistic taste, his patient wife has drawn and engraved the camera-lucida portraits that each poison presents, with the various reagents.

But even this excessive delicacy of recognition is not sufficient to detect the presence of several of the most potent alkaloids when given either by the mouth or by hypodermic injection. Aconitia is now prepared so pure, that "1-50 part of a grain" is a fatal dose for an adult; 1-100 part would be fatal if thrown either under the skin or into a small vein. This poison, if fatal, would of course be *absorbed*, and it would be utterly impossible to recognize it either by color, taste, or by crystallization, with the most powerful microscope. "Assuming only the blood contains it, this equals the 1-9,800,000 part of a grain. If diffused through the whole body, it would then be reduced to the 1-44,800,000 part of a grain.

I have before referred to the recognition by Wormley of atropia in the blood of a dog, poisoned with five drachms of fluid extract of belladonna. Also in that of a cat. Duffield says: "Among numerous cases of poisoning by opium or its alkaloids, which have fallen to my lot to examine and depose on, I cannot conscientiously say that I ever detected *absorbed* morphia."

There are hundreds of cases scattered through the medical journals, giving like negative results, and proving the almost impossibility of detecting any of the alkaloids when given in ordinary fatal doses—doses that are absorbed into the circulation. No one can deny that these medicines are *absorbed*, because some few instances are given where they have been detected in the blood and in the urine; but the greater part of the poisons seem, so far as our present knowledge goes, to spend their influence upon the blood or tissues, and, in so doing, to be changed or decomposed. It is only in *excessive* doses that the kidneys eliminate a portion unchanged, or that the blood contains a recognizable quantity. My experiments are all with excessively large doses.

Dr. De Vry, who has made many experiments with the alkaloids, thinks that those portions of the alkaloids, which produce their peculiar action, are decomposed and changed.

With these facts before us, it behooves every medical man to become a better therapeutist; for the conviction of criminals who poison must be proved by the symptoms which are noticed in the dying person. The various alkaloids produce their well-known and characteristic symptoms; these symptoms, if well marked, are as fully entitled to consideration as the facts presented by the chemist, which, after all, are but evidence of another character.

Upon the literature of the subject, in addition to the authors already quoted, I would refer to Cohn & Koerner (Berl. Klin. Wchschr. 16, 1865); F. Evans (British Medical Journal, September 21, 1861); T. Hayden (Dublin Quarterly Journal, August, 1863); E. Rollett (Weim. Med. Wschschr. 95, 1866); Otto (Vrtjhrschr. F. ger. Med. N. F. 157, 1866); Schmidt's Jahrb., cxx, 181, 1865); Rud. Hohl (De Atropini effectu, Hal., 1863); Béhier (L'Union, 85, 1863); Chambers (London Lancet, 1864); Lubeiski

(Gaz. Hebd., September 7, 1864); Commaille Jour. de Pharm. et de Chim., April 1865; Woodman (Medical Times, 385, October, 1864). Donder's work, above quoted, is very full and instructive on all that relates to the action of atropia on the eye, and Wormley's "Micro chemistry of Poisons" on all that relates to its toxicological properties.—[*N. Y. Med. Jour.*

ART. II.—HYPODERMIC METHOD OF INJECTION.

The following is the *therapeutical portion* of the report of the committees on this subject of the Royal Medico-Chirurgical Society, a committee which embraced among its members such men as Savory, Henry Lee, Holmes, Durham, and its conclusions may be regarded as the best and most recent authoritative teaching we have in reference to hypodermic injections. We copy it from the thirty-second volume of the *Medico-Chirurgical Transactions*, London:

In this portion of their report the committee have drawn their conclusions as to the therapeutical advantages that distinguish the subcutaneous method of injection from experiments with a few active medicines, and though the list might have been extended, it must be borne in mind that many valuable drugs cannot be used in this way, on account of the irritating properties they possess.

The intensity and the rapid sequence of effects which have already been shown to characterize the hypodermic method of administering drugs are important advantages, which are readily appreciated by the patient; and the dread which the slight operation may have caused at first is soon overcome when once the resulting benefits have been experienced.

In the relief of pain this method of introducing anodynes offers superior advantages to those in ordinary use; and in cases of delirium, of mania and of tetanus, where there is resistance or impediment to the ordinary modes of administering remedies, subcutaneous injection secures not only quickness of action, but also certainty as to the introduction of the drug.

Much difference of opinion exists on the question of localizing the injection. Cases have been communicated to the committee from which the superiority of local injection has been maintained; but although they have performed many experiments in reference to this question, the committee have failed to obtain any evidence to show that the local predominate over the general effects. They must therefore express their opinion that, though no symptom results from injection at the part affected, which is not shared equally by injections at any other part of the body, yet practically it may be advantageous to localize the injection for the sake of those effects upon the mind which localization will sometimes produce.

Injections may be repeatedly practiced in the same locality without any serious or permanent injury to the part. Mr. Roberts injected himself many times successively, in a very limited area, without any worse result than temporary thickening and irritation.

The committee have endeavored to procure details of untoward results following subcutaneous injection. One or two other cases have come to their knowledge, but of these they have been unable to obtain any satisfactory account.

The following are the results of their experiments on man in disease with aconitine, atropine, morphine, quinine and strychnine:

Aconitine.— This drug was tried in three cases of neuralgia, but the local tingling which followed the injection was so severe that the drug was considered unfit for subcutaneous use. In one case, in which the neuralgia was of an hysterical character, the pain was relieved; in the other two cases, no alleviation was experienced. In the first case 1-100th grain was used; in the others, 1-320th grain and 1-216th grain.

Atropine.—The anodyne properties of this drug are exhibited in a marked degree in subcutaneous injection.

In cases of simple neuralgia, atropine, when thus administered, is a very valuable remedy, and, in some cases, where morphine procured only temporary relief, the benefits derived from atropine injections were permanent. Very decided results were observed to follow minute doses of the drug used in this manner.

The pulse was accelerated to a considerable degree in one case, when 1-160th grain only had been injected. A larger dose should be given in cases of severe neuralgia, and the most satisfactory results were found to follow when decided toxical effects were manifested.

The discomfort (the excitement, the dry mouth, and the occasional disagreeable action on the bladder) experienced during the action of this drug presents a considerable hindrance to its general use. The cases in which atropine was used with advantage were cases of local neuralgia, lumbago and sciatica.

The initial doses are the eightieth of a grain for a woman, and the sixtieth for a man, but in cases of severe neuralgia larger doses may be given with safety. The largest dose mentioned to the committee was one-tenth of a grain.

Morphine.—The value of this drug is materially enhanced by this method of administration, and its action is not only secured with greater intensity and rapidity than by the ordinary modes, but the duration of its effects is prolonged, and some patients can tolerate it far better when it is injected under the skin than when it is given by the mouth.

Injected subcutaneously, this remedy does not invariably lose its virtues by repetition, and instances have come to the knowledge of the committee where the injection has been repeated daily for a number of years without the dose being augmented. Mr. Roberts expressly states that, though the injections were repeated in his own person more than a hundred times, the dose was never increased beyond two-thirds of a grain, and a smaller quantity was often found sufficient.

To confirmed opium-eaters, this method has been found of much service, smaller doses than those previously taken by the mouth being requisite. The largest dose mentioned by the committee was given to such a patient; as many as eight grains of the acetate were injected in this case.

Patients suffering from cancer have derived much benefit from the use of subcutaneous injections. Mr. Reeves mentions that from six to eight grains were injected in one case daily for a considerable period.

In allaying pain, the virtues of the drug are decidedly increased by injection, though the effects are not always permanent.

In cases of delirium tremens this method is often extremely useful, and in some instances was found to succeed where the introduction of the drug by the mouth failed; in a few instances, however, it seemed to have a negative result.

From the few cases of mania treated by injection that have come under notice, it would seem that this method of giving morphine is not altogether free from danger; in one case of mania the injection of half a grain proved fatal, and the same dose narcotized another patient for four days.

The initial dose for an adult man, under ordinary circumstances, is from one-sixth to one-fourth of a grain; for a woman it should be smaller—from one-eighth to one-sixth.

A few other cases where alarming symptoms have arisen from the injection of morphine have been forwarded to the committee.

Briefly stated they are the following:

One-quarter of a grain in a man, not fatal.

Twenty-five minims of the liquor morphiæ acetatis, equivalent to five-twelfths of a grain of morphia, produced narcotism in a man, not fatal.

A quarter of a grain in a young lady twenty-four years of age, not fatal.

In those cases of mania already alluded to:

Half a grain in a woman suffering from acute mania, not fatal.

Half a grain in a similar case, fatal.

In some hospitals it has been the practice to inject a small dose of morphine after operations, for which chloroform has been used; the injection being made before the effects of the chloroform have passed off. It was stated that the sleep is prolonged by these means and the after effects of chloroform prevented, but from the experience of the committee on this point it would seem that the sickness following the use of chloroform is not always prevented by morphine injections, though it may be retarded.

Quinine.—The advantages possessed by this mode of giving quinine, in the treatment of intermittents, over the ordinary method, are well illustrated. The remedy can be given so as to cut short all the symptoms of the fit, even when the increasing temperature has shown its accession, and this is done in the most complete manner, which is not always the case when the medicine is given by the mouth. No local injury followed the injection of five grains of quinine in this instance; but in another, where a larger quantity of water was used an abscess formed, perhaps from the fluid having been too rapidly injected.

Not only, then, are rapidity of action and completeness of result advantages belonging to this method of exhibiting quinine, but also economy of material—a considerable recommendation to medical men on foreign stations, and to travelers in countries where intermittents prevail and the remedy is scarce.

Strychnine.—This drug was injected in a few cases of paralysis, but no peculiar advantage was observed to follow its administration by the skin.

Dr. Beigel, in his evidence before the committee, mentions one case which yielded to this method; and Mr. Charles Hunter also expressed his opinion favorably with regard to the subcutaneous use of this drug.

In those cases of paralysis in which strychnine was used, the initial dose (for both sexes) was 1-80th of a grain, and this was increased gradually to the 1-40th of a grain.

Podophyllin.—No advantages seem to be gained by administering this purgative by the skin beyond those of rapidity of action and smallness of dose, nor is it probable that this method of giving purgatives will supersede those in ordinary use.

The subcutaneous injection of the drug is sometimes followed by irritation, and in one case an abscess was formed.

The cases in which this medicine was used have been recorded in detail, but present no special features for comment.

Conclusions.—The conclusions which the committee deduce from their investigations are—

1. That, as a general rule, only clear neutral solutions of drugs should be injected, for such solutions rarely produce local irritation.

2. That whether drugs be injected under the skin, or administered by the mouth or rectum, their physiological and therapeutical effects are the same in kind, though varying in degree, but

3. That symptoms are observed to follow the subcutaneous injection of some drugs, which are absent when they are administered by the other methods; and, on the other hand, certain unpleasant symptoms, which are apt to follow the introduction of the drugs by the mouth and rectum, are not usually experienced when such drugs are injected under the skin.

4. That as a general rule, to which however, there may be exceptions, clear neutral solutions of drugs, introduced

subcutaneously, are more rapidly absorbed and more intense in their effects than when introduced by the rectum or the mouth.

5. That no difference has been observed in the effects of a drug subcutaneously injected, whether it be introduced near to, or at a distance from the part effected.

6. That the advantages to be derived from this method of introducing drugs are—

a. Rapidity of action.
b. Intensity of effect.
c. Economy of material.
d. Certainty of action.
e. Facility of introduction in certain cases.
f. With some drugs the avoidance of unpleasant symptoms.

This plan, therefore, is most likely to be preferred where very rapid and decided effects are required from drugs which are operative in small doses.—[*West. Jour. of Med.*

ART. III.—RHEUMATISM.

At St. Mary's we have noted of late several patients recovering from acute rheumatism, and learned something of the plan which has been adopted by Dr. Gibson during the last year in all cases without exception. It may described as embracing three points.

1. Removal of pressure and tension of joints. 2. An even and warm temperature. 3. Removal or relief of pain. To accomplish the first of these ends, the patient lies in bed, and his joints are muffled in cotton, wool and flanel, a cradle being placed where the weight of the bedclothes is painful. For the second, the patient wears a flannel dressing-gown, and the blankets touch the skin of the lower extremeties, sheets being placed only over the upper part of the bed. For the third, the linimentum belladonna [℞. Ext. Belladonna ℥j, Linim. Saponis f. ℥vij. Ed.] is applied to painful joints, and covered over with wadding. Occasionally, where the pain is very excessive, from an eighth to a quarter of a grain of morphia is injected subcutaneously. For the rest, he has now and then found it useful to apply a leech or two to a swollen joint or to the cardiac region. In cases where there appears to be a gouty complication, Dr. Gibson employs a little iodide of potassium; but apart from this he does not give any

potash to his patients. He tells us, in answer to an inquiry, that he finds the urine rarely containing acid after the first few days of treatment. As regards food, his experience and practice are not a little interesting. The patient is allowed from the first, roast meat, rice pudding and porter. We ascertained, moreover, from inquiry of the nurses, that this diet was not only ordered by the doctor, but was consumed by the patient, with very rare exceptions. Some patients to whom we spoke confirmed the statement; and added, also, strong testimony to the immense relief derived from the application of belladonna in the way described. The nurses said that the patients generally slept well at night.—[*Lancet.*

ANALYTICAL DEPARTMENT.

"Qui e nuce nucleum esse vult, frangit nucem."—PLAUTUS.

ART. I.—ANALYSIS OF VARIOUS ARTICLES. Published in the Medical Times and Gazette, the British Medical Journal and the London Lancet. (Original copies.) By PROF. JAMES M. HOLLOWAY, Associate Editor.

Dr. Hyde Salter, has derived great benefit from the use of tr. belladonna, in the treatment of asthma. He has used the tincture, but thinks that *liquor atropiæ*, from its uniformity of strength, would even be preferable. He reports five cases in the Lancet, January 30, 1869, illustrative of the mode of administration. He thinks the tincture should be given at night before retiring and that the dose should be gradually increased until the "physiological effects" are well-marked. The following is a summary of his reasons for adopting this plan:

1. That, giving it at night, you bring the full force of the drug to bear upon the disease at the time at which it is most liable to come on, and thus, if you are successful, tide your patient over the critical time.

2. By gradually feeling your way up to the required dose, you are able ultimately to reach without fear a dose which you would be unwilling to prescribe without such a tentative approach.

3. In those cases in which the therapeutical dose is reached before the physiological—that is, in which the asthma yields before the sight or head is appreciably affected—it enables you to stop short as soon as relief is obtained, and thus spare your patient any of the disagreeable effects of the drug.

4. By giving it only once in the twenty-four hours, you are able to give a larger dose than you would be able to do if oftener repeated.

5. By confining the dose to bedtime, the patient's days are, in spite of a large dose, passed in comfort; for, as the morning advances, the dullness of head, confusion of sight, and drought of mouth pass away.

6. You are thus enabled to find out what is the dose for the individual—a very important point. People differ very much in their tolerance of belladonna. Some of my patients have been unable to take more than twenty minims once in the twenty-four hours without very unpleasant symptoms; while I have known others able to take a drachm three times in the same interval without any inconvenience. And as they differ in their tolerance of the drug, so do they differ in the dose at which their asthma will yield. The only way to ascertain what that dose is, is to make each case a separate experiment, and this can only be done in the way I describe.

7. By giving the remedy three or four hours before the attack is likely to come on, the treatment becomes *prophylactic.* If by taking a dose every night for thirty nights the attacks have been for that time prevented, the patient has ceased to be an asthmatic for a month. This is a very different thing from having had thirty attacks in the same time which had been cut short by the remedy. In all "habitual" diseases, in which the recurrence keeps up the tendency, prophylactic treatment has, in relation to final cure, a preëminence it does not possess in diseases in which habit has no place. For such diseases it is *the* treatment. It does more than spare your patient an attack of his malady; it breaks, *pro tanto*, that chain of sequence which is the very life of the morbid tendency.

A full copy from the "medical annotation," in the Lancet, is submitted, in reference to the importance of the establishment of a professorship that will embrace the study of the "public health," in all the medical colleges in this country. "The very important decision to appoint a Professor of Public Health at University College will constitute a precedent, to be followed, we trust, at all other schools of medicine. The subject is one of such vast importance to the public that it can no longer be left to form a subordinate part of the general course of medicine; and the increasing tendency to appreciate the value of sanitary work cannot fail to open a career to those who have been carefully trained for its performance. The period of time at which the example of University College will be followed by other schools will probably depend, in some degree, upon the actual working of the class now about to be formed; and it is therefore a matter of more than usual importance that the first Professor should be selected with special care, and with particular reference to his power of teaching. Several candidates will, we hear, be in the field; and those most talked of are Drs. Anstie and Ballard. There can be no doubt of the high professional character and general ability of both these gentlemen; but it seems to us that the special claims of Dr. Anstie, and his experience as a teacher, are considerations too weighty to be set aside. He has done good service in our columns as the principal Workhouse Commissioner; he has published the well-known Notes on Epidemics; and to some of his papers on State Medicine in the public journals much of the subsequent action in that direction may be traced. Dr. Ballard is a well-known and intelligent medical officer of health; but has hardly yet given proofs of his complete fitness for the professorial office to which he aspires."

We copy, in full, from the same department in the Lancet, February 20, a brief notice of "Glycogeny," in which is presented the reconciliation, by Austin Flint, Jr., of the discordant views of Pavy and Bernard in relation to the "sugar function" of the liver. "In an article contained in the New York Medical Journal, Dr. Austin Flint, Jr., gives the details of experiments which he thinks go far to harmonize the discrepant results obobtained by Bernard and by Pavy. Dr. Flint holds that during life a constant formation of glycogen is taking place at the liver, out of either the farinaceous or the albuminous constituents of the food; but that it is no sooner formed than it is washed away by the great mass of blood which is constantly passing through that organ. During life, therefore, the liver contains only the glycogenic matter, and no sugar, as Pavy maintains; but after death, or when the circulation is interfered with, the transformation of glycogenic matter into sugar goes on; the sugar is not removed under these conditions, and can then be detected in the substance of the liver."

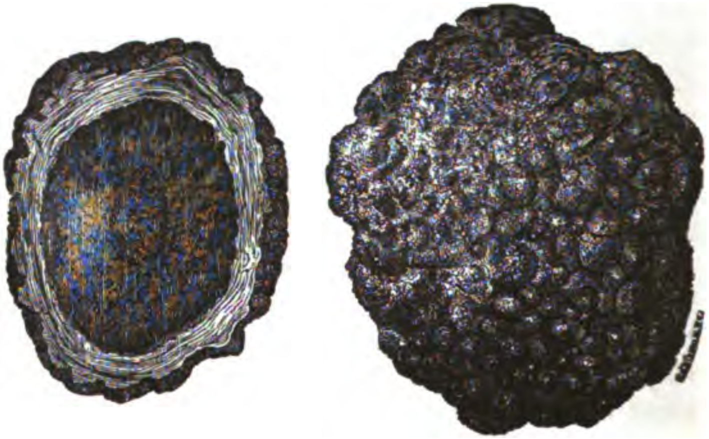
CLINICAL RECORDS.

"Ex Principiis, nascitur probabilitas: ex factis, vero veritas."

ART. I.—CASE OF MULBERRY CALCULUS OF UNUSUAL SIZE. LITHOTOMY. DEATH AT THE END OF THE THIRD WEEK, THE RESULT OF SUCCESSIVE HÆMORRHAGES, OCCURRING ON THE 8TH, 12TH AND 20TH DAYS AFTER THE OPERATION. By NATHAN S. LINCOLN, M.D., Professor of Clinical and Operative Surgery, National Medical College, Washington, D. C.

On the 20th of August, 1867, Michael F———, about 50 years of age, a laboring man, applied for advice on account of symptoms of gravel, from which he had suffered for more than twelve years. These symptoms were great irritability of the bladder, some pain after evacuating the bladder, pain from exercise, and bloody urine. He had been treated by numerous physicians, without material, or only temporary relief, and had been several times sounded, without the detection of stone.

The indications, however, of the presence of calculus being very marked, I at once introduced a sound, and immediately struck a large and hard stone. The patient was directed to Providence Hospital, where, on the 3d of September following, in the presence and with the assistance of Drs. Miller, Eliot, Dove, Reyburn, Bulkley, Prentiss, Todd and Robbins, of this city, I proceeded to perform the lateral operation for stone. I used the lithotome of Prof. N. R. Smith, making the incision with facility, and dividing the left lobe of the prostrate as freely as I deemed prudent, in anticipation of encountering a stone of large size. Yet, on introducing the finger into the bladder, I found this free opening quite inadequate for the passage of a stone, very large, hard and rough. The right lobe of the prostate was then carefully divided with a probe-pointed bistoury, when the stone was at length, with much difficulty, extracted.



The hæmorrhage was slight, and the patient experienced little shock from the operation. The following day he was found doing remarkably well; pulse 70, with less pain than for years; appetite good, both for food and tobacco. The wound was in excellent condition and no soreness or pain in surrounding parts.

This state of things continued until the morning of the eighth day after the operation, when a severe hæmorrhage occurred, which, under the management of the nurse, an uneducated Irishman, (the rules of the religious order governing the hospital not permitting a resident physician,) continued until deliquium arrested the flow. I did not learn of the accident until many hours after the occurrence, when I found the wound stuffed with a dense coagulum and the bladder greatly distended, and the patient much prostrated. The coagulum was removed and the bladder evacuated without further bleeding at the time. Three days after, another, but slighter, hæmorrhage took place, which still further reduced him, and though there were no other unfavorable local symptoms, the wound and adjacent parts remaining in good condition, he continued gradually to fail until about the end of the third week after the operation, when a slight recurrence of the hæmorrhage caused him to sink rapidly.

I regret that a post-mortem examination was not permitted. His death was, in my opinion, occasioned by the hæmorrhages, though, as no medical man was present at the occurrence of any one of them, and no autopsy was made, the source of the bleeding cannot now be determined.

The weight and dimensions of the calculus, as determined by Dr. Benjamin F. Craig, at the U. S. Army Medical Museum, were as follows: weight 77.23 grammes, or 2.48 oz. troy. Dimensions—length, greatest diameter, 2¼ inches; hight, 1⅛ inches; thickness, 1 5-16 inches.

Art. II.—A Case of Excessive Secretion of Liquor Amnii, Producing Premature Labor. By R. W. Dunlap, M.D., of Danville, Ky. Read before the Boyle County Medical Society, January 5, 1869.

On the 29th of December, 1868, I was called to see Mrs. H——, aged 38 years, well developed and previously in the enjoyment of general good health; is the mother of eight children, six years ago having given birth to twins; had *phlegmasia dolens* at last confinement and now has varicose veins. Found her sitting up and breathing with difficulty; pulse 100, regular and firm; tongue covered with a white coat; bowels rather torpid; urine deficient in quantity and high colored; skin dry and hot. On examination, the abdomen was found distended fully as much, indeed seemingly more than a woman who has gone to full term; is hard and slightly tender to the touch.

On questioning her, she declares that she has not advanced further than the sixth month; that everything went as usual with her, until about three weeks previously; from that date she commenced to enlarge, and has done so rapidly until the present; that during that time she felt quite unwell, having no appetite, sleeping badly at night, suffering from vertigo, and lately finding it very difficult to breathe when lying down. She complains greatly, also, of a sense of uneasiness about the pubic region and bladder, but says that she has no desire to make water more than usually frequent and has no difficulty when the effort is made. Palpation and percussion give no sense of fluctuation. Has had no treatment to the present. ℞. Hydrg. chlor., mit; Jalapæ āā, grs. v. —*m.* To be be taken at once and repeated in four hours, and to be followed by: ℞. Potass. Bitart., ʒi. To be repeated every two hours, until free alvine evacuations are produced.

30th.—As on yesterday. Bowels acted freely during the night, but no increase of urinary secretion. Made a digital examination; found the os firmly closed, but the cervix obliterated, and the size and sensations presented to the touch just those which one finds existing at full term. Repeated the prescription of yesterday.

31st.—The same effect followed the prescription as on the 29th, the urinary secretion being still defective. The patient to-day is more restless and the enlargement of abdomen has evidently increased since I first saw her.

Cannot lie down with any ease; complains still of pain in pubic region and small of the back. Gave a dose of calomel and dover's powder, 5 grs. each, to be repeated in four hours, if not easier, with a diuretic mixture: ℞. Fl. ext. buchu, f℥ij; tr. digitalis, f℥i; spts. nitre, f℥v.—*m.* Sig. A teaspoonfull every few hours in a wineglass of a decoction of uva ursi.

January 1st, 1869.—Patient much the same. The diuretic seems to have had no effect whatever; gums slightly swollen and can detect a faint mercurial fetor; discontinued the calomel, but ordered the diuretic mixture kept up, and warm fomentations containing camphor, turpentine, laudanum and chloroform to abdomen and back.

January 2d.—Saw patient, to-day, in consultation with Dr. J. D. Jackson. Pulse 110, skin moist, bowels not moved for the past twenty-four hours, kidneys secreting slightly more urine, pain in the pubic region and back not diminished, and the sense of impending suffocation, when lying supinely, increasing. Her stomach is irritable and found her retching on entering the room. She has had no sensations of quickening for the past twenty-four hours. Neither the placental souffle, nor pulsations of the fœtal heart were perceptible, and the hand dipped in cold water and applied to the abdomen was not followed by signs of fœtal life, although the motions of the fœtus have heretofore been lively. The most careful examination by *palpation*, percussion and auscultation combined were insufficient to elicit evidence of fluid within the abdominal parieties. There is no œdema of the abdominal surface nor anasarcous condition of the ankles, face or labia on making digital examination, nor œdematous protrusion at the umbillicus. The os is very much in the condition as heretofore. As said, the impression to the sense of touch was identical with what we have in gestation at full term. The fœtus, with head presenting, can be discerned on endeavoring to make *ballottement.* The only conclusion which we can come to is, that either from unknown causes there is a formation of liquor amnii in great excess, or she has twins, or triplets or possibly more children, or, lastly, that she has been somewhat egregiously mistaken as to her time, and that, after all, she is on the verge of confinement at full term. ℞. Morphia, gr. ⅛, every six hours and the diuretic continued. Took away some of the urine for chemical and microscopical examination.

January 3d.—Condition as yesterday. Saw the patient in the evening in consultation with Drs. Jackson and Pawling. Found her sitting up in an arm chair; says she cannot lie down. We were not able, by a minute examination, to throw further light on the case. A digital examination showed the softs parts more relaxed and lubricated than yesterday, but, beyond this, nothing to make one suppose labor to be about setting in. An examination of the urine secreted yesterday, showed no albumen; and subjecting it to heat and nitric acid, under the microscope, there are neither tube-casts nor blood-cells apparent, but is loaded with urate of ammonia, and with an unusual quantity of tesselated epithelium, probably from the vagina or bladder. ℞. Morphia continued and the substitution of scruple doses of acetate of potash in solution for the diuretic hitherto used. An enema of an infusion of senna and sulphate of magnesia to be used before bed time. About one o'clock in the night, I was sent for and found the enema had acted well and that its action had been followed by a slightly increased discharge of urine, but the restlessness and uneasiness in the lower portion of abdomen had increased. Just before I arrived she went to stool, and, while sitting over the vessel, the waters suddenly gushed forth, filling the vessel; then a large washbowl, which the nurse placed under her, and finally the bowl overflowed and the floor was flooded for a great space around. The total quantity could not be accurately ascertained; but I am sure it could not have been less than four and very probably six gallons. Living hard by, I arrived just as the waters ceased flowing. On making an examination, I found a fœtus presenting, which came away in a few minutes without pain or apparent expulsive effort after its passage. An examination revealed another fœtus face downward, with a hand and foot presenting, brought down the feet and delivered with but slight pain. There being no after-pains, and fearing flooding from the previous great distension, I gave her wine of ergot, ʒij, and in 15 minutes ʒij more, which I repeated in 10 minutes after; but in spite of the ergot, titillation, external pressure and traction on the cord, no pain was induced, and the placenta remained unexpelled. I finally introduced my hand and removed it. It proved to be an excessively large, rather square shaped one, apparently single (there being no appearance of the fusion of two, as I have hitherto seen always,) with two cords each implanted near the opposite margins.

The children were 14 or 15 inches in length, respectively weighing, the one 2½, and the other 3 pounds, and were still-born (both males), and had apparently been dead several days; one of them much more discolored than the other, giving evidence of having died probably a day or more before the other. The patient up to this time is doing well, having recovered as rapidly and as well as after former confinements. The stage of gestation from the evidence of the mother and appearance of children was between six and seven months.

Dropsy of the Amnion, is of rare occurrence, and more especially is it rare to find anything like so large a secretion of amniotic liquor, as in the case above reported.

Most of the systematic works on midwifery omit mentioning it as one of the complications of labor, and most of those which treat of it do so, but briefly. Dr. Robert Lee, has recorded a larger number of cases than any one else we know of. In a paper read before the London Medico-Chirurgical Society, November 9, 1830, he speaks of three cases previously recorded by Mercier, together with six cases observed by himself. Baudelocque reports two cases, one in which 13 pints escaped from the uterus, and another one of 22 pints. "Certain authors (according to Cazeaux) have even known 40 or 50 pints to exist in the amniotic cavity. The fluid is similar in all respects to the liquor amnii." M. Duelos, M. Evrat, Sr., of Lyons, and M. Bunsen, have each reported cases somewhat similar. A case is reported by M. Kill, "in which the extreme distension of the uterus produced abortion at the sixth month. The circumference of the placenta a third larger, and its thickness double that of ordinary placentas."

Ramsbotham, in the first edition of his work, omits to mention it, but in the last edition, in a foot note, gives a detailed account of one case, and speaks of others having come under his observation.

Dr. Edward Stodart reported a case in Vol. I, 1832, of the London Lancet, as also does Dr. Reid, in Vol. I, 1839. From the above cases, and our own, we are able to analyse the following facts: The cases have all come on and matured, delivery taking place between the fifth and 8½ month, and in the majority of cases, about the seventh month, being that in which delivery took place. Although Mercier has laid it down as a fact that the excessive secretion is invariably dependent upon inflammation of the amnion; yet in the majority of instances, a careful *search* has not shown such to be the case, though in several of the cases, general dropsy accompanied the affection, yet in the majority, no such complication has been found to exist. In about one-third of the cases, the child was born dropsical; in three cases was the child born alive, and in but one did it live.

Contrary to what might have been anticipated, in no instance do I find *flooding* following delivery; and in no case, did blood-letting, purgatives, mercurials, digitalis, and other diuretics, which are recorded as having been used, seem to have been attended with the least success in diminishing the amount, or retarding the accumulation of the amniotic fluid. When we consider the overwhelming probabilities against the fœtus being born alive, or found viable, we agree with Dr. Lee, M. Evrat, Sr., and Ramsbotham, in their recommendation, that, on a correct diagnosis being arrived at, we should puncture the membranes, and evacuate the superabundant liquor amnii. Although in this case we left it mainly to nature, and permitted the spontaneous rupture of the membranes to take place, and the patient did well.

ORIGINAL CORRESPONDENCE.

"Sit mihi Fas scribere audita."

PARIS, January 27, 1869.

The winter course of clinical lectures commenced recently in their respective hospitals. Excellent extracts of the principal ones appeared in the London Lancet, of January 2. I will not dwell on the introductory lecture for fear of repetition. One professor in particular, was looked forward to with interest: Professor Lee, who has recently been elected to the chair of Medical Clinique, at the Charity Hospital. He has become very celebrated, on account of the boldness of his theories and the originality of his ideas. So far, his teaching had been limited to theoretical lectures, at the Hospital Beaujon, and the School of Medicine, and naturally much curiosity attended his first clinical lectures; his No. 1 was totally occupied with giving his ideas on clinical studies, but in his second, the curiosity he had excited was not misplaced; for he commenced by lecturing on a new disease, or as he termed it, an unpublished disease, namely, *Ammoniœmia.* He commenced by saying, that it must be put alongside of uræmia and of albuminuria, with which it had been confounded; its etymological meaning is, adulteration of the blood by carbonate of ammonia; we will see presently in what condition it occurs. The Professor established a parallel between two patients in his wards, one having uræmia and the other ammoniæmia. Uræmia, said the Professor, happens always in cases of lesions of the tubular elements of the kidneys, (tubuli) by granulo-fatty degeneration, but is not obligatory in the amyloïd and atrophic forms, and that the accidents are caused by saturation of the blood by urea. He then described rapidly, the different form of uræmic accidents, and among others, the dyspnœic forms, first described by himself, and characterized by respiratory and circulatory accidents, just as in asthma, or diseases of the heart; he said that care should be taken not to confound these accidents with those occasioned by a preëxisting disease of the heart. As to ammoniæmia, it is consecutive to the stagnation of the urine in its reservoirs, in alterations of the excreting apparatus, calix, bassinets, ureters, bladder, etc. Stagnation in the bladder, by the irritation it occasions, causes a secretion of mucus and muco-pus; the urine is transformed; the urea is converted into carbonate of ammonia, which on being reabsorbed by the bladder, infects the blood. To this absorbing property of the bladder, I shall shortly return.

In uræmia, the only morbid principle contained, is albumen, whereas, in ammoniæmia, there is always, besides, mucus or pus; œdema, habitual in Bright's disease, is exceptional in ammoniæmia, and then it is limited to the lower extremities. In uræmia there is vomiting, diarrhœa, disorder of the respiratory functions, impairment of sight, general weakness, convulsions, obscurity of the intellect, coma, the tongue and skin are normal, as also the color of the patient; there is no fever. In ammoniæmia, vomiting seldom takes place; there exists generally a constipated condition of the bowels. The breathing is natural; tongue dry, fuliginous; skin dry, earthlike; the breath, as well as the whole body of the patient, exhales a urinous or ammoniacal odor. There is fever, with burning heat, whilst the intellect remains unimpaired unto the end. In this summary account of the symptoms, the professor evidently describes, what is generally designated by the vague name of urinous fever. The terminal accidents of cystitis and pyelo-nephritis, under the title of urinous fever, are often put in the same list with those terminating in Bright's disease, and called uræmia, whereas, any one who has seen a certain number of both cases, will readily admit, they do not at all resemble each other. And again, the term urinous fever is applied at the same time to that following sometimes the simple passings of bougies, and certainly the symptoms which attend this latter proceeding, do not resemble the accidents to which I have just referred. Therefore, although in my opinion Prof. Lee, under a new name, has simply described accidents already known in respect to their course and termination, he has made an attempt to disengage them from the obscurity which surrounds their proximate cause, and for that reason his researches are of interest and value.

The absorption of the poison (carbonate of ammonia) by the bladder is a condition *sine qua non* in Prof. Lee's theory, and on that head physicians are far from being in accordance. Rarely has the absorption of medicaments by the bladder been accepted by the authors, most all denying that power to the bladder. I sent last year, to the London Lancet, a short account of the result of researches I had made in that direction, and in the Bulletins de Therapeutique, of December 31st, I inserted a more detailed account. It may not be amiss, *apropos* of Prof. Lee's theory of ammoniæmia, to extract in a few words the result of my observations, not only in order to show the absorbing power of the bladder, but because of the practical interest of the cases. In Dr. Guyon's service at Necker Hospital we frequently used injections of chlorohydrate of morphia into the bladder, but in order to attain a satisfactory result, it is necessary to take certain precautions: the injection must be *strong and concentrated* and thrown into an *empty bladder*. We habitually employed a small perforated sound and the drops were introduced by means of a Pravaz syringe, so as to be able to reckon them. The dose commenced with was generally one grain, morning and evening. We employed those injections, with remarkable success, in a number of old cases of cystitis, accompanied sometimes with very severe pain and frequent micturition. In every case those two symptoms disappeared or had diminished in a remarkable manner after not more than three or four days' time. In one case of very acute cystitis, we made those injections with great success.

Dr. Guyon, whose name I have just mentioned, has recently published an account of a new proceeding that he has contrived for amputating the leg above the ankle.

Until now, the great difficulty in performing this operation was to obtain a thick flap and to avoid having an anterior flap. Dr. Guyon's method somewhat resembles Pirogoff's, but he does not leave any portion of the calcis in the flap; he calls it an oval proceeding. He performs the operation in the following manner: About three or four fingers across, above the malleoli, he commences his oval, by a curve across the front of the leg looking downwards; he then brings down his incision across the malleolus, internal or external, according to the foot; he then curves around down, so as to bring the middle of the curve across the lower extremity of the of the tendon achillis, near its insertion, so as when the tendon is separated its sheath is not opened; he then slopes up across the other malleolus and ascends the side of the leg so as to meet the commencement of his incision. The flap is then completely dissected, (a simple bistoury is used the whole time.) When the foot is sawed off, the bloody surface has the form of a long oval; the lower end is then attached to the upper by three or four wire sutures, the angles on either side being left open so as to facilitate the issue of pus. I saw Dr. Guyon operate twice very successfully by this method.

Whilst speaking of surgical proceedings, I may just mention that Dr. Verneuil has read, at one of the last sittings of the "Surgical Society," a report on a case of extraction of a naso-pharyngeal polypus, wlth excisions of the maxillary bone, performed by Dr. L. Thomas, of Tours, according to a method advocated by Dr. Verneuil himself. It consists in giving the patient the benefit of chloroform, by plugging up the back opening of the nasal fossa before operating and excising the maxillary bone, by the help of cutaneous incision. The first incision is made nearly horizontally back from the wing of the nose, one finger being placed inside of the cheek, so as to keep the incision constantly above the point where the mucous membrane is reflected from the cheek into the maxillary bone, and thus preventing the operator from penetrating into the mouth. The excision is commenced by the upper external part, reserving the section of the roof of the mouth for the end, thus preventing the blood from passing downwards and suffocating the patient while under the influence of chloroform. The operation was crowned with complete success.

At the same meeting, Dr. Paulet read a report of a very interesting case of aneurism of the right primitive carotid cured by digital compression. The tumor was about four inches long by three across. The compression was indirect and intermitting; in all, 130 hours and in the lapse of seventeen days. The compression was done by passing the fingers around the sterno-mastoid muscle and pinching the primitive carotid. Mr. Rouge, of Lausanne, who treated the case, remarked that the compressing of the artery on the tubercle of the sixth vertebra (or Chassaignac's tubercle, as it is called here,) causes great pain, through the compressions of the pneumogastric nerve. The cure was complete. Two very interesting and curious remarks were made in connection with that compression, which was attended with no cerebral disorder. The patient had a very vascular wart on his lip, which became gangrened during the treatment of the aneurism, showing that the anastomosis of the arteries of the face are not always sufficient to reëstablish the circulation; the ulceration was the occasion of an erysipelas of the face, head and neck. The patient had also a cataract in both eyes; the right one (corresponding to the tumor) was much less advanced than the left, but it was observed that after the treatment the cataract of the right eye had become complete, while the other had stood *in statu quo.*

Apropos of aneurisms, in the Gazette des Hôpitaux, Dec. 24th, is a case of spontaneous aneurism of the popliteal artery, cured by forced flexion of the knee, the leg being fastened in that position by a bandage, in three days the tumor was found solid and offering complete absence of pulsations or souffle. A couple of weeks after, the patient walked about completely cured. The same patient came back a few months later with an aneurism in the other popliteal space, but the cure could not be obtained as in the first case, by forced flexion of the knee, nor by digital compression. The ligature of the femoral artery was performed; an erysipelas followed, but disappeared; the thread fell on the nineteenth day. Two or three days after, there was secondary hæmorrhage; gangrene appeared, and the patient died.

Prof. Gosselin published recently a lecture he delivered last year, at the Charity Hospital, on "an hygroma of the serous sac under the deltoid muscle." The professor said he knew of but one other case like it; it is related in the clinics of Robert of the Hotel Dieu. The patient was in the habit of carrying a load on his shoulder, and a couple of weeks before entering in the hospital, he remarked a tumor on his shoulder and he had some difficulty in raising his arm. When Dr. Gosselin saw it, it was about the size of a large hen's egg, soft and fluctuating, without pain; it was also the seat of a little crepitation as from hordeïform grains; by causing the deltoid to contract, it was evident that the tumor was beneath the muscle. The professor rapidly eliminated the idea of encephaloïd, lipoma, fibro-plastic growth, on account of the evident fluctuation of the tumor, and then there only remained the hypothesis of different liquid tumors, such as cold abscess, sanguineous tumors, or tumor containing serum. The professor adopted the last diagnosis. He then proceeded to puncture the tumor and evacuated a little more than an ounce of reddish serum, with a few fibroïd grains; he then injected a solution of iodine, with half water, and left it in the tumor for five minutes; the region was then compressed with a bandage, and about five or six days afterwards, the tumor was found a little diminished; the compression was continued, and about a month afterwards the man left completely cured.

In a recent communication to the *Societê de Biologie*, *M. Lionville*, *Interne des Hôpitaux*, gave the result of the researches he had been making on the internal effects of nitrate of silver upon the economy. As early as 1862, Messrs. Charcot and Vulpian, mentioned the presence of albumen in the urine of patients taking nitrate of silver, and a year after, Dr. Ollivier studied albuminuria in lead intoxication. It was with the knowledge of these facts, that M. Lionville set to examine the kidneys of patients who had been treated with nitrate of silver. He presented the result of his first researches to the society, in the shape of a small globule of pure silver he had extracted from about one half of one of the kidneys. The patient had taken six years ago, and in the course of nine months, 700 pills, making seven grammes in all of nitrate of silver. On cutting the kidneys open, the divided surface presented an innumerable quantity of specks of a bluish, black color, corresponding to the glomerules of Malpighi. In examining them under the microscope, M. Lionville saw that they were really the glomerules injected throughout with silver. But what is of more value, M. L. saw that here and there were parts of the kidneys in which granulo-fatty alterations had taken place, explaining the presence of albumen which had been found in the urine. M. L. has since had another similar case, and the examination of the kidneys was in all parts resembling the first case. Other organs contained deposits of silver. The supra-renal capsules and the choroïd plexus, for instance, were examined. The practical conclusion that M. Lionville drew from his researches is, that nitrate of silver, taken internally, may become the cause of albuminuria, which indicates the imminence of Bright's disease. The indication to stop or diminish the medication then becomes evident. The same gentlemen made lately another very interesting communication to the Societé de Biologie. He presented several cases of miliary aneurisms of the brain coinciding with larger aneurisms in other organs. Since the first researches of Messrs. Charcot and Bouchard, and recorded in M. B.'s thesis of 1867, the presence of miliary aneurisms in the brain as being one of the most frequent causes of hæmorrhage, through their rupture, has become a well-known fact, but the coincidence of them with others of a larger size elsewhere, is a completely new thing. M. L. presented three cases, and he has, since the New Year, found two others. Besides the miliary aneurisms of the brain, in the different cases, he found, in all of them, atheroma of the arteries more or less developed and aneurism in the coronary arteries. In one case there were some about as large as a millet grain in the œsophagus, and in another the iliac arteries were the seat of several, varying in size from an almond to a hazel nut. There were also some found on the arteries of the retina.

The question of the miliary aneurisms of the brain had become here lately rather *à l'arche du jour*, and M. Lionville's researches have filled up a blank, for Messrs. Charcot and Bouchard in the commencement of the researches upon the pathology of hæmorrhage of the brain, which they published in the Archives of Physiology last year, said they had no reason to generalize the fact of the miliary aneurisms and the peri-arteritis that causes them, as being a lesion, to be extended to all the arterial system. In one of the last numbers of the same periodical, I see that these authors have corrected their assertions so as to make it accord with the more recent researches of M. Lionville.

At one of the recent meetings of the Medical Society of Paris, Dr. Aug. Vaisin communicated a memoir on "the cutaneous eruptions caused by the internal use of bromide of potassium." During the time he remained attached to the service of the epileptics at Bicetre, M. Vaisin treated a great number of them by bromide of potassium. I may say, *en passant*, that I was under him in that service for a year and followed all his experiments on the epileptics; on account of the great number of these unfortunates, he was able to use and did use almost every medicament that had been advocated againt epilepsy, and with one only—the bromide of potassium—did we obtain any success. With this we saw a great many benefitted, (at the dose of 6, 7 and 9 grammes.) But to return to his memoir. He divides the eruptions into five forms: The first, acneiform, the most important on account of its frequency, is well known; but recently an attempt has been made to put this eruption to the score of the iodide, so often contained in the bromide. M. Vaisin, however, takes care to specify that the bromide, which he employed, was free from iodide, as he verified it frequently. The second variety is a very curious one and a very rare one. M. V. only witnessed it six times. It is very important to make it known, for several physicians, who saw these eruptions on two of M. V.'s patients, could make nothing of them. M. V. was kind enough last year to call me to see one of these cases, a boy of eleven, and I was much struck with their aspect. Generally they appear on the legs, not more than two or three at a time. They are formed by an eminence, sometimes one-half inch in diameter, supported by an indurrated base; the skin around is sometimes the seat of slight œdema; the base has the color of smoked ham, rather redder when they first appear; the elevated part, at first somewhat resembles in color and aspect, a vaccine pustule; it is depressed in the centre and becomes rather yellower as it advances in age. The centre is insensible, but the rest is often exceedingly painful when touched, and sometimes the pain continues for months; when opened, thick pus runs out, but only at an advanced period. In the one I saw, there was every appearance of liquid, and I was very much surprised, on opening it, to find it contained no fluid at all, and I am unable to explain that fallacious appearance. In two of M. V.'s patients the pustule was replaced by an atonic ulceration exhaling a fetid odor; one lasted three months, the other seven. These eruptions were never accompanied by fever nor by tumefaction of the glands. The third variety M. V. only saw twice; they were a sort of mixture of nettle rash and knotty erythema, but differing from both; from the first on account of the nodosities and from the second from their long duration; one lasting six months without ulceration. The two other varieties appear to me of no importance.

Whilst writing on this subject, it may be well to mention some recent applications of bromide of potassium. M. Moutard-Martin, physician to Beaujon Hospital, has lately published a paper, in which he said he obtained the best results from it in calming babies who are simply restless during the night, without being otherwise unwell. It is remarkable what strong doses of bromide little children can support. Dr. Bouchet, at the Children's Hospital, gives generally two, three and four grammes and that for a certain length of time. Having several times seen, at Bicetre, intoxication to result from the use of the bromide, I questioned Dr. Bouchet on the subject, and he told me that he had never witnessed the slightest inconvenience; in fact, he said, he did not believe in the accidents designated by the name brominism. For my part, I have seen it several times.

In the Gazette des Hôpiteaux, December 21, Dr. Raciborski published a case of vaginism, (an affection which in Paris is always coupled with the name of our illustrious compatriot, Dr. Sims); in this case the vaginism was excessive, and had existed for some time, accompanied with dysmenorrhœa, and it was through the success he had already obtained in cases of dysmenorrhœa, that Dr. R. was led to give the bromide. The cure was rapid and complete.

This digression on bromide of potassium, has prevented me from putting beside Dr. Vaisin's publications, (on the cutaneous eruptions occasioned by the employment of a medicament,) some other interesting cases of cutaneous eruptions, observed in the course of pyæmia, by Dr. Verneuil, of Lariboisiére Hospital. The eruptions which fell under his notice, have never been described in the pathology of pyæmia, and on that account are of great interest. In two of the cases, the eruptions affected different forms on the several parts of the body. In one, on the back of the hands and around the waist, the eruptions appeared like nettle rash. The next day, the eruptions had become general, but here and there were to be observed large pustules, such as in variola, (pustules similar to these have been described in glanders); elsewhere there existed spots like psoriasis. In the course of the same evening all had disappeared, leaving as sole vestiges, slight desquamative and ecchymotic spots like purpura. The patient died the next morning. In another case there existed blue spots, (as in typhoid fever) accompanied by herpes zoster, affecting the bullous form, nearly all disappeared the day before death.

In another case the eruptions were like purpura; on another there were eruptions of psoriasis, which, in certain places changed into an appearance of diffused angioleucitis.

SPRINGFIELD, MAURY COUNTY, TENN., March, 1869.

It may be of interest to the profession to take notice of a case of unusual fecundity, occurring under my observation.

Maria H——, colored, was delivered of her first child in the year 1850, being at that time fifteen years old. Her next six children were born at intervals of eighteen months, all healthy and still living, except the fourth, which died of dropsy in its seventh year. Her first husband deserting her, she remained single for several years, after which she "took up," as she says, with her present "man," by whom she has had twins seven times, all coming at intervals of about one year, except the fourth pair, between which and the third pair, she was delivered of a fœtus of four months. All the twins were born alive, but all died in a few hours or a few days after birth, except the third pair, which survived one month. The twin births were all premature, arriving at the sixth or seventh month, the third pair being the best developed.

On yesterday, assisted by Dr. J. O. Hardin, I attended her in a case of *triplets*, she being in about the seventh month of pregnancy. The first, a boy, was delivered alive, the presentation vertex. The pains continuing hard, she was seized with convulsions, the placenta being retained. Administering a full dose of laudanum, I passed my hand into the womb and withdrew it. Making immediate examination, I found another child presenting naturally, enveloped in the membranes, which I ruptured. This was followed quickly by the descent of the child, a girl, which gave a few signs of life, but could not be resusitated. I withdrew the after-birth soon after. The bearing-down pains continuing, upon examination, another bag of waters was found at the os, which was ruptured as before. The third child, a girl, was then delivered, presenting by the feet.

The woman had become cold and exhausted, but was revived by the administration of stimulants and the application of warmth to her body.

Maria is now thirty-four years old and still vigorous. To-day she and the child are doing well. She has had already twenty-four, and, counting the fœtus of four months, twenty-five children. I learned many of the facts of the case from the family, her former master and mistress still residing here. Respectfully,

A. C. White, M.D.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

"Judex Damnatur cum nocens Absolvitur."

Pre-historic Ages of Scandinavia and the Lacustrine Dwellers in Switzerland, etc. By Theodore S. Bell, M.D., Professor of the Science and Practice of Medicine in the University of Louisville, 1869.

It is one of the glories of medicine, that, in its study, the collateral branches of science are explored and are made tributary to its triumphs and its progress. It is a welcome fact, that a very large proportion of the contributions made to ancient and modern science are justly credited to physicians. He has but a limited appreciation of the vast field of medicine, who assumes that it includes only the familiar material of daily cultivation, or that its fruits are to be measured by the harvests of the routine laborer. Many of the triumphs of medicine are unquestionably recorded in clinical literature, but these lose much of the stupendous importance familiarly attached to them, when, in comparison, are placed the grand offerings which the modern physician brings from the fertile domains of kindred and collateral science.

It is pleasant to observe, that many of our scientific practitioners find time for recreative excursions into the more unfamiliar sections of the professional field; that they industrially pluck the glorious fruit which adorns our inexhaustible possessions, and that they bring the valuable results of their labors, as welcome tributes, to beautify and adorn the professional garner.

When such unusual and welcome contributions are made, it is but just that they should be examined, and in no manner can these examinations be recorded more appropriately, than in the pages of a medical journal.

The subjects selected by Dr. Bell are not only interesting in themselves, but their study is productive of the most important results; if this study be accurate and judicious, the results insure scientific progress and moral harmony; if it be superficial and imperfect, the effect is disastrous and lamentable.

In giving interest and ensuring comprehension in the analysis of a subject, very much depends upon the manner in which it is approached. Dr. Bell's mode of approach is by no means happy or attractive. There is a want of definiteness and conciseness; an absence of directness and essential preärrangement. There is discursiveness and irrelevancy; pleonasm and ambiguity. Such faults generally in a writer are partly due to individual organization, but much is also to be ascribed to a want of familiarity with a subject, or to an insufficient experience in the uses of the pen. The result may be produced by one or more or all of these causes. It is not necessary in a review to specify the causes peculiar to the individual author; it is sufficient to indicate the result.

Dr. Bell, in his introduction, first calls attention to the Huttonian theory; next he eulogises the attractions of vegetable physiology, only to exclude them from the discussion. Now he discusses the fallacy of the common opinion that the title "dark and bloody ground" was given to Kentucky by the Indians; and again he analyzes the phosphatic beds recently exposed near Charleston, S. C.

In discussing this last subject, (the exposure of this bed long known to scientific men,) Dr. Bell makes a serious and injurious blunder. He states that the coincident presence of the bones of man with those of the mastodon and other extinct species of mammalia subverts the usually received opinion, in regard to the antiquity of man; that these deposits show that man was coeval with those animals, and that his existence is to be consequently traced to a far more remote period, than that usually taught and believed. Dr. Bell assumes here that geological phenomena subvert the teachings of the Mosaic record; or as he, in brief and familiar language, states, "these facts point to an antiquity of man upon the earth far beyond the narrow bounds that very crude notions about that myth, called Mosaic chronology, have asserted, notions founded upon prevalent conjectures of the ignorance of ancient heathens, that revolutions in millenaries of years in man's estate are fixed facts." It must seem to most readers, that the deposits in these phosphatic beds do not, by any means, teach the lessons claimed. It would be equally fair to contend that they prove the fallacy of the usual belief, that the now extinct species of mammalia existed for ages prior to the creation of man. It is just as logical to conclude that these mammals did not become extinct as early as is claimed, as to assume that man existed prior to the period generally accepted. If the fossil remains of man and extinct mammals occur coincidently, the result may be due to two causes: first, that these mammals existed subsequently to the creation of man; or, second, that man was so created as to be strictly and absolutely coeval with them. Dr. Bell assumes the latter explanation to be true; the first is more fair. Indeed it is not only more fair, but it is conclusively correct; for while the fossils of man and of these extinct mammals are found in the post-pliocene (recent) deposits, in the eocene (earlier) or even oolitic deposits the fossils of these extinct mammals are found, where no evidence of the human skeleton has ever been discovered. If man, as Dr. Bell claims, was really coeval with these extinct mammalia; if he was created at the same time that they were, his fossil remains would necessarily be found in all geological strata coincidently with theirs; but inasmuch as such coincidence occurs only in the more recent geological deposits, it is demonstrated, that this coexistence obtained only so far, as to prove that man was created prior to the absolute extinction of these mammals. The possibility of the creation of man dating back to the period, when the mastodon, the megatherium, etc., were created is totally subverted by the fact, that the fossils of these animals are found in the oolitic and earlier tertiary deposits (the eocene and miocene) while those of man have not been discovered in any stratum previous to the most recent: the post-pliocene and alluvial.

But this is not a recent question, as Dr. Bell assumes; it has been fully and convincingly discussed in connection with the geological strata of the London and Paris "basins" long before the phosphatic beds near Charleston were minutely examined, and in more recent times, in connection with that tract of country known as the *Mauvaises Terres* of Arkansas.

No proposition is more demonstrable, than that man did not appear until the post-pliocene period in geology; no proposition is more demonstrable, than that the mammals whose fossils are found in these phosphatic beds near Charleston did appear at a period long prior to this time; even as early as the periods which marked the eocene and oolitic deposits. To say that these beds show an antiquity in man far greater than that taught in the Mosaic record is, with the facts mentioned, to assume a position wholly untenable. The truth of Mosaic chronology (that "myth," as Dr. Bell terms it,) has never, so far, been impaired by the records of geology; few geologists of any position at the present day entertain such a view. That many, enjoying a temporary notoriety, have published such doctrines, is known to all, but the record shows that they are, in the opinion of our great geologists, either palpably illogical in their selected arguments, or are mere sciolists, incapable of causing serious injury. That their arguments are not controverted or even subverted more frequently, is due to the fact, that such action is not considered necessary; the attack is too weak to provoke a defense.

A fossil condition of man does not indicate great antiquity; for, by all the laws of modern science, fossils do not prove great age. Human fossils, when intermingled with the fossils of extinct mammals, do not prove great antiquity, because many species of birds and animals have become extinct within historic periods.

Sir Charles Lyell repudiates the view advocated by many (previous to the publication of Dr. Bell) that the antiquity of man is even *possibly* greater than the antiquity claimed in Mosaic chronology; he says the fact that the fossils of man and of extinct mammals are found (as they were found before the Charleston phosphatic beds were known) coincidently present in a geological stratum cannot prove this. The greatest naturalist of modern times, Owen, incontestibly proves that the Arctic buffalo (now extinct) and the great Cetacean (now extinct) were contemporaries of the celebrated Elephas Primigenius, which Dr. Bell describes with such enthusiastic unction and proves to have been valorously hunted and ignominiously slain by man. To complete the argument, the Newburgh mastodon is surrounded by the deposits of the post-pliocene and alluvial periods; showing that all these mammals were not extinct as early as has been believed; that their fossil remains and those of man occurring together constitute no evidence whatever of the antiquity of man being greater than is generally believed; or greater than is claimed in Mosaic chronology.

There is no evidence, worthy of a moment's thought, which demonstrates any antagonism between the records of Moses and the phenomena of geology. Moses does not fix the time of the material creation. His account admits of the lapse of an immeasurable period between the "beginning" and "the first day." The "days" mentioned by him are symbolic of long periods. Indeed it must be admitted, by all who have examined the record, that theology in coping with infidelity has triumphantly refuted the specious sophistry of either a sciolistic or atheistic philosophy.

In discussing the pre-historic age of Scandinavia, Dr. Bell has arbitrarily accepted Denmark as the limits of Scandinavia, while they embraced both Norway and Sweden. It has been a matter of unsettled dispute, whether the Scandinavians were of Indian, Persian, or Pelasgian origin. Dr. Bell disposes summarily of this point by arbitrarily asserting that they were Phœnicians who had visited Scandinavia *to obtain amber.* Thus Louisville settles an ethnological dispute of classic interest and duration.

In studying the kjoekken-moedding or kitchen-rubbish heaps of Scandinavia, Dr. Bell enumerates their contents as follows: shells, bones of animals, grouse, bone tools, pottery, etc. Dr. Bell asserts, that among these bones there is only one domestic animal represented, the dog; the Scandinavian animal mentioned being of the pointer species; other domestic animals not appearing before the succeeding or bronze age. Marlot, Rochat, Schwabb and other writers show that among the fossils of this period (the stone age) are to be found the remains of the dog, cat, horse, hog, sheep and goat. The pointer belongs to the historic period, and was first found in Spain. Dr. Bell states that the presence of oyster shells in these kitchen-rubbish heaps shows that the Scandinavians used boats: "Oysters can be gathered only by the use of boats." Those residing in oyster regions will smile at this assertion. Oysters, with rare exceptions, grow and are planted in shallow water. Many birds (that neither swim nor dive) and many animals prey upon them. He states that the oyster has disappeared on that coast, because "the sea has lost much of its saltness." Marcet and others show that this alleged change has not occurred. If, however, the sea had lost its saltness, what effect could this have on the oyster. Oyster plantations are sedulously established where the salt of the sea is less. The plantations of the Thames and other rivers have been selected with this view. A classical scholar, like Dr. Bell, must surely remember, that the finest oysters ever known were those from the Lucrine Lake in Campania; oysters extravagantly eulogised by Horace, Cicero, Virgil, etc. "Not the Lucrine oysters could delight me more than the olive gathered from the richest branches, etc."—[Horace, Ode II.] The oyster not only grows to great perfection in waters that have lost some of their saltness, but in waters that are fresh the best oysters known have propagated for centuries. As in the Lucrine Lake, so near some of the margins of the sea coast, the oyster has completely disappeared, on account of reasons totally unconnected with the saline impregnation of the water.

Dr. Bell speculates as to the existence of the grouse bones in these "heaps," when there is no food for grouse evident; but after examining the geological strata, he discovers the logs of the *pinus sylvestris*, on the buds of which the grouse feeds. In explaining the cause of the total disappearance of these trees, he says, "the men of the stone age, in their use of the *pinus sylvestris* for boats, houses, food and firewood, let the storms in upon the forest," and so they were all blown down; the logs all falling ,"evenly and straight." Those familiar with the endless pine forests of Florida and the Gulf States will, it is anticipated, have no respect for Dr. Bell's "archæological investigations into the palæontology of the period," after such an explanation. In those States, acres of pines are prostrated, where man has never lived; the trees not falling, as Dr. Bell is willing to believe, "evenly and straight," but in an inextricable tangle and confusion. Again, openings into forests do not produce the results claimed. Solitary trees are selected by surveyors and woodsmen as enduring landmarks. The "Seven Pines" of Virginia, isolated and alone, are historic in natural, as well as in military history.

Hugh Miller, Buckland and others, have given the only true reason for the disappearance of such growths. The land, as they show, has been vertically elevated, sometimes ten and twenty feet, as on the coast of Scotland; trees growing in damp soil (as does the *pinus sylvestris*) have the character of this soil altered, and necessarily perish, from being deprived of a support essential to their growth.

Dr. Bell, in explaining the small stature of the pre-historic Scandinavians, makes a series of unfortunate blunders. First, he lays down the novel proposition, that "physiologically, man is made for living on fruits alone." Forgetting this dogma, he says, in almost the next sentence, "but fruit alone is not capable of perfecting physical development;" that is, man is physiologically made for living on what can never make a man of him. To reconcile all of these dietectic anomalies and contradictions, he declares that man is made with "omnivorous powers." It seems that these people were dwarfed for want of "phosphates" and that, according to Dr. Bell, the skulls of the stone age were consequently smaller than those of the next period. One would suppose, that a diet of fruits, grouse, wild swan, and oysters was quite sufficient to furnish phosphates even to those studious and confessedly intellectual people. Most persons of the present day would be willing to rely upon such diet, for either phosphates, or stature, but it seems that these Scandinavians differed in this respect from the rest of the human family. Dr. Bell quotes Liebig, in regard to these phosphates, but even this speculative and visionary German would smile at the assumption, that so magnificent a diet was phosphatically insufficient for these unhappy barbarians. It is not rash to say, that Liebig and his credulous proselytes would be willing to exchange their phosphatic oaten porridge for grouse, swan, truit and oysters. The facts, however, in regard to this matter are, that, judging from the fossils of these pre-historic people, they were not smaller than those of the bronze age. Rutimeyer, in speaking of a stone age skull, says "it does not differ sensibly from the skulls of the station (or period) of the bronze age." Dr. Bell also attributes the small stature of this people to an absence of cereals with their contained phosphates, etc. Desor states that wheat and millet, with the remains of apples, cherries, strawberries and raspberries have been discovered near the residences of those living in this stone age. Surely if these articles of diet are added to those enumerated, one must admit that if any of these Scandinavians were unable to obtain a respectable stature, it must be attributed to an excess rather than to a deficiency of food.

Dr. Bell in attempting to prove that diminutive stature was manifest in the stone age, makes a serious anatomical blunder. He says as the coronoid process of an inferior maxillary bone belonging to an animal of the bronze age was larger than that found in the corresponding bone of an animal (of the same species) that lived in the stone age, therefore the animals of the bronze age were larger than those that lived during the stone age. He argues that a larger process proves the existence of a larger muscle and that this last proves the existence of a larger animal. If the coronoid process of a single dog dead during the present year, were found to be larger than that of a dog which died last year, would this, in the judgment of most persons, prove that dogs were becoming annually larger or conversely? Anatomically, is there any logical relation between the size of a process and the size of the bone; between the size of the process and the size of the muscle attached to it; between the size of the muscle and that of the animal? Do we not find, as the age, sex, species, assimilation, work, food, etc., of an animal vary, that there may be a varied relation in the size of bone, of process, of muscle, etc. Do we not find, in varied species, varied relations in these anatomical elements; large processes on small bones, small processes on large bones, a small muscle attached to a large process, and a large muscle attached to a small process? Is there any anatomical relation between the size of muscles and the area of their attachment? Do we not find the largest muscles with a small area of attachment and conversely? What muscles are stronger proportionally than the biceps gastrocnemii, triceps, the semi-membranosus, the semi-tendinosus, etc., and yet their area of attachment is conspicuously small. What anatomical reason is there for assuming the size of a muscle by measuring its area of attachment, or assuming the size of an animal from the size of a muscle? Large muscles have small attachments; small muscles have large attachments; small animals may have large muscles, and large animals may have small muscles. The mode of reasoning is altogether faulty. Owen may predicate the size of an animal upon the size of a single bone, but never the size of a bone or of an animal or of a muscle upon the size of a process.

Dr. Bell next takes up the subject of the "Lacustrine Dwellers." To the examination of this, the most important and interesting branch of his work, he devotes but seven pages. In speaking of the textile fabrics of these people, he erroneously asserts that the art of weaving was unknown to them. Portions of looms form part of the deposits removed from the Lacustrine sites of the dwellings of these people.

In the short description mentioned of the Lacustrine dwellers, Dr. Bell introduces the following medley of subjects: Notices of the Alps by Julius Cæsar; the bearing of the Helvetians in the battle of Bibracte; the Cimbri; the Roman army under L. Cassius; Helvetian tablets; the plain of Shinar; the tower of Babel; monuments on the coast of Arabia; the terrace of Hisn Ghorab; the destruction of an Arab party called Ac by another called Ad; the relations of Ad to Noah; the manufactures, dyes and silks of the Hadramants; a bird's-eye view of Job, stating where he lived and on what material he wrote; the nature of the inscriptions of the tribe of Uz; Egypt and Egyptologists; Xerxes building a bridge across the Hellespont; the Arabs; Phœnician coinage; the Ionians of Asia Minor; commercial value of the port of Marseilles; the voyage of Pytheas; night-sailing of the Phœnicians; Orgetorix and the inscriptions on Helvetian coins; the gathering of amber by the Phœnicians; teaching of the mysteries of the "Little Bear" to the Greeks by the Phœnicians; Baal the god of the Phœnicians; the men of Carthage, including Hannibal, Asdrubal, Adherbal; and a host of other subjects manifestly appropriate in a description of the Lacustrine dwellers of Switzerland. When it is remembered that only seven pages are given to the interesting claims of these "dwellers" and that in these seven pages, Dr. Bell discusses the thirty-five subjects mentioned, with very many others, it may be inferred how much is to be learned of the lake inhabitants of Switzerland, whose history forms a part of this work. This constant digression is a conspicuous feature of the whole of his book; indeed, apart from the many and great errors of the work, digression is its chief feature.

Dr. Bell, for no manifest reason, then devotes his attention to the plain of Shinar, and with a single paragraph, overturns all that has been written in regard to the tower of Babel, the confusion of tongues, etc. He ridicules all other writers upon this subject, and informs his readers, that the grand and solemn historic facts recorded in this connection were due to the refusal of the Babel-founders to "scatter" and go West !! Dr. Bell informs us that he can prove the truth of this by geology! "The whole process of molding *this planet* (as the earth is called throughout his work) was for purposes of this kind, as we can easily demonstrate by geology."

Next the reader is called upon to examine the following subjects conspicuously appropriate and connected: The objection of the Jews to be led against the Amorites; the guilt of Daniel; the speech of Paul to the Athenians; Hellenistic expressions in Homer and Sophocles; the first pair; the garden of Eden; the foolish error of Milton in regard to Adam and Eve; the march of the Israelites from Egypt; Assyrian, Chaldean, Egyptian and Persian civilizations; the Cushite Arabians; Greek sailors and the straits of Gibraltar; the pillars of Hercules; Neku II.; Bablyon and the Bedouin Arabs; Pascal; China; India; Egypt; Euphrates; Mexico; Yucatan; the valley of Anahuac; Peru; Columbus; Greenland; Newfoundland; Nova Scotia; North Carolina; Massachusetts; a description of the New York Crystal Palace; Thorwaldsen's claims as a sculptor; the Mediterranean; Ægean sea; Palestine; the Nile; the Indian ocean; the invasion of Persia by Alexander; Strabo's description of the development of nations; ridicule of Humboldt's notorious ignorance and presumption; the alphabet obtained from the Phœnicians by the Greeks; the sarcophagus of Ashmunazer; "the high cosmical power" of the book of Job; Hales; Troy; Achilles; Patroclus; the character of the metal forming "the mouth" of Vulcan's bellows; silver, gold, tin and brass in making armor; flux in making iron; the ignorant Roman; Humboldt's contemptible ignorance of Phœnician civilization; Carthage and its remains; Mosaic pavement from the temple of Astarte; the number of works on agriculture by Mago; petroléum; Wall street; the altar of the cathedral at Albany, which is to cost $65,000; Tacitius; Norse literature; Norse poetry, so dear to Dr. Bell, and which, he assures us "is a perpetual joy to those who have sounded its depths;" description of Copenhagen; Joachim; Ole Bull; the inexcusable blunders of Dr. Johnson in his dictionary; English philologists and the sheep of Panurgus; caustic satire bestowed upon Webster, Worcester and Johnson for not knowing, as English lexicographers, the meaning of the Norse word jannock, this fact alone being sufficient to subvert the factitious reputation of these notorious impostors and to cover them with shame and mortification. Dr. Bell says their disgrace is due to the fact that they had not studied a dictionary by the brothers Grimm, a work so well known to every one.

He is then seduced away to the East again and tells us very appropriately all that Diodorus Siculus has to say about the nine kings of Chaldea; the alphabet of the Chaldeans; the kings of Sidon; the Phœnicians being criminally "addicted to astronomy, mathematics and night sailing," which vices alone are sufficient to account for their downfall, etc., etc., ad infinitum.

The remainder of the work is devoted "to the position, the appointed work of the American continent for the culmination of the civilization, by which the renovation of mankind is to be effected." Dr. Bell devotes two whole pages to their consideration. In this comprehensive and comically concise, examination of the culmination of civilization on the American continent, Europe is described to be "already shorn of that national element, divinely stamped on human progress—its adaptedness to being transplanted; its ability as a distributor." Dr. Bell does not, of course, see or explain his gross inconsistency; America, so great and glorious in his estimation, owes her position and success to the very cause which he repudiates, viz.: European adaptedness to being transplanted; for without this, what would have been the past and present of America? It will scarcely be believed that, after this statement, he says of America, "our cultivation must begin with ourselves." The author now gives a eulogy of America; given in all the gushing freshness and comic hyperbole of the enthusiastic sophomore.

In analyzing Dr. Bell's work critically, one is surprised to see constant errors in orthography, syntax, and the most flagrant disregard of the laws of composition. He says "the various families of people who entered Europe were immigrants into it." The inspired writings or holy oracles are called "the highest power encased in physical man." The earth, by an affectation known hitherto only in military bombast, is called always *"the planet."* The paleography of the earth is described as being "as legible as the most perfect chirography," when, in other places, the author ridicules the contradictory teachings of past and present geology. The English would cruelly call this "gammon," and it is. The deluge is alluded to by the familiar name of cataclysm. "The vail that obscured our vision of the primitive occupants of Switzerland was lifted and spread (that is, the vail) before us large fields of knowledge;" a most unfortunate sentence. The style of Dr. Bell is remarkable; the sentences are so long, involved and complex as to be frequently unintelligible. Talleyrand would have gone into raptures over such sentences (taken at random) as the following. (In endeavoring to explain his difficulty in selecting the subjects herein reviewed, Dr. Bell thus describes his troubles.) "First, there loomed before me that surpassing world of grandeur and beauty, commingled with the essential utilities for all the future greatness and prosperity of the coming lords of *this planet*—the primeval vegetation of the earth which, through immense periods, performed a world of manifold duty for the coming man ages before he was made." This sentence is however comparatively brief and lucid when compared with that following: "The variety and beauty of this primeval vegetation, cleansing *the planet* of noxious gases inimical to animal life, removing masses of carbonic acid gas from the atmosphere, whose presence made a tropical temperature over all *the planet*, and storing fuel for the future use and progress of man, and contiguous iron for his necessities and decreed mastery, presented fascination almost irresistible." The reviewer has made the study of the next sentence a specialty, but confesses, fairly and openly, his inability to understand any portion of it: "Now, had Europe been placed east of Asia, it would have been a frozen region, scarcely habitable anywhere in all its domain; but with the coast of an open sea on its north and west—the latter (that is, the west) warm even in January—its south receiving fructifying powers from the heated atmosphere of Africa, its western coast visited by the westerly warm winds that gather moisture from the warm sea, and giving out latent heat in their aqueous deposition, which, aided by the gulf-stream, gives Europe a warm and genial climate that would otherwise be rigorous and unfruitful." The ambiguity and obscurity, the complexity and involution of Dr. Bell's style culminate, however, in this next sentence. (In these days when one hears of champion cues, and pugilists, and churns and base-ballers, etc., the reviewer will be pardoned for terming this Dr. Bell's "champion" sentence. In point of obscurity, complexity, involution, orthographic incorrectness and general unintelligibility, it may be boldly offered as the champion sentence; no competitor can ever approach it.) "One of the most beautiful of all the laws of physical geography connected with man is in the truth that exceptions to the decree of specific fauna and flora for special localities *is* found in the fact, that toward the appearance of this archetype on his *planetary* heritage, plants and animals essential to his necessities as a wanderer, were made and adapted for accompanying him."

There is much else appropriate for review, but too much space has already been devoted to this purpose. The whole science of craniology Dr. Bell disposes of in a few sentences; it is all "absurd," "a myth," etc. Aristotle, Camper, Blumenbach are all snubbed; their great systems are riddled; their laurels are plucked from their presumptuous brows and they are consigned as pretenders and impostors to a tomb of eternal obloquy and disgrace.

Dr. Bell announces, in conclusion, his novel geographic and ethnological discovery, that where nations have mountains running north and south through their domain, "homogeneity" (or homogeniety as he repeatedly writes it) of the people is fostered thereby; where the mountains run east and west, this homogeneity "does not and can not exist." It is useless to controvert this theory; history does so by its earliest and latest records.

Dr. Bell expresses an unbounded joy that as Rome destroyed Carthage, Herman, the Phœnician, broke "the spine of Rome in Germany" and sent Rome "reeling toward destruction." He writes, "I love to think that the ghost of Phœnician Carthage haunted the emperor's sleep," etc. Such sentiments and feelings might have been pardonable in a Carthagenian, but they are surely unworthy of the historian or the man of science.

Much more than the usual space has been given to this review. Dr. Bell enjoys in the West, the reputation of being a man of much learning and wisdom and when any publication emanates from such a source, it is the custom and duty of the press to compare the recent record with the previous reputation; to measure the writer by his writings. It must be admitted that there are innumerable facts, assertions, speculations, etc., in this publication, but it must be also admitted that these could have been as appropriately published under any other title.

Dr. Bell is unquestionably a man of extensive acquirement. He has certainly acquired much, but this medley of material has not been either digested or assimilated. He suffers from a species of mental dyspepsia, and the miscellaneous food, voraciously received, comes undigested from an over-taxed organ, in crude and heterogeneous masses.

There is a want of unity and grasp in his style; abruptness, without conciseness; volume, without comprehensiveness. He is unable to wield the mighty weapons which his ambition induces him, unfortunately, to seize, and he reminds one of rash Francois striving to use the ponderous sword of Richelieu. If Dr. Bell's reputation is well merited, this publication does him immeasurable injustice.

It is far more acceptable to a reviewer to use the pen of the eulogist, rather than that of the censor, but this, very frequently, can not justly be done. The public has long since decided, that the critic should be condemned, unless the faults of the criticised be passed in review. If the readers of the Journal will pardon the use of a little Dawsonian "dust," this truth can be better expressed, in the old Roman aphorism, "judex damnatur, cum nocens absolvitur."

I.—PERCUSSION AND AUSCULTATION. By AUSTIN FLINT, M.D. Fourth edition. W. Wood & Co., 1869.

II.—PRONOUNCING MEDICAL LEXICON. By C. H. CLEAVELAND, M.D. Philadelphia: Lindsay & Blakiston, 1869. Eleventh edition.

III.—THE PHYSICIAN'S DOSE AND SYMPTOM BOOK. By J. A. WYTHES, M.D. Eighth edition. Philadelphia: Lindsay and Blakiston, 1869.

IV.—CONSPECTUS OF THE MEDICAL SCIENCES. By HENRY HARTSHORNE, M.D. Philadelphia: Henry C. Lea, 1869.

V.—MEDICAL DICTIONARY: CONTAINING THE PRONUNCIATION, ETYMOLOGY AND SIGNIFICATION OF TERMS, ETC. By J. THOMAS, M.D. Philadelphia: J. B. Lippincott & Co.

I.—Dr. Flint's manual is excellent. It comprises, in a very few pages, the essentials of the science of percussion and auscultation. It is a just exponent of this science at the present time. Its cost, postage included, is not more than seventy cents.

II.—Dr. Cleaveland's Lexicon is published at so low a price ($1.50) as to be at the command of every one. Few physicians are so thoroughly trained classically, as to know the proper pronunciation of all medical terms. This work gives valuable information on this subject. The price given includes postage.

III.—Dr. Wythes' book is a very useful formulary. It gives much material in a small compass and can be obtained at the low cost of $1.50, postage included.

IV.—Dr. Hartshorne's Conspectus can be fully and freely recommended. It has been examined with care, and to physicians and students it will be found a most valuable companion. It is arranged in the style of Neill & Smith's compendium, but it is more liberally illustrated, and is a more accurate exponent of modern science. It is recommended without reserve. Price, with postage, $5.50.

V.—The lexicon of Thomas is the largest "pronouncing" lexicon published in the country. It is far more compendious and complete than that of Cleaveland, but its cost is proportionally greater—$3.75, postage included. There is so much confusion and inaccuracy in the pronunciation of medical words, that the value of these "pronouncing" lexicons can not well be over-estimated.

If it be a convenience to physicians for him to do so, the editor will cheerfully order any of these works for them.

MISCELLANEOUS.

"Non Omnes Eadem Mirantur Ament Que."

Prof. Charles A. Pope—An Analysis of His Life. Dr. Pope was born in Huntsville, Alabama, on March 15th, 1818. His primary education was received at Greene Academy, in his native town. He subsequeutly passed through the prescribed courses of collegiate study in the University of Alabama, and immediately afterward commenced the study of law. Finding, however, that the sedentary habits necessary to its prosecution were incompatible with his then rather delicate constitution, he abandoned it for the study of medicine. Dr. Pope attended his first course of medical lectures in the Cincinnati Medical College. Dr. Drake was then at its head, and in the hight of his fame and popularity as a teacher, He was the idol of his class.

At the age of twenty-one, Dr. Pope received his degree from the University of Pennsylvania, and soon after repaired to Europe for the further prosecution of his studies. He was then noted as a most expert and neat operator on the cadaver. He remained in Paris nearly two years, and afterwards visited the great continental schools, as well as those of Great Britain and Ireland.

It was on January 1, 1842, that Dr. Pope commenced the practice of his profession in the city of St. Louis, where his studious habits, high moral worth, and gentlemanly bearing, soon brought him into public notice and favor. In 1843, he was unanimously chosen Professor of Anatomy and Physiology (these chairs being then united) in the Medical Department of the St. Louis University. In 1846, he again visited the Old World. In 1847, he was transferred to the chair of Surgery, at which time he had acquired considerable reputation as a surgeon.

As a lecturer, Dr. Pope is rapid, clear and concise; he is fluent, but makes no effort at oratorical effect. With the history and literature of surgery he is conversant. He eschews the practice of medicine, devoting himself solely to the teaching and practice of surgery. His collection of instruments, preparations, drawings and models, illustrative of his branch, are unexcelled by any private collection in this country.

As an operator, he is calm, confident, expeditious, full of resources, and successful. His contributions to surgery are valuable, and have been extensively republished.

At the annual assembling of the American Medical Association, at St. Louis, May 2, 1854, he was unanimously chosen President, and presided over the meeting with distinguished ability. Since that time, Dr. Pope has been almost unremittingly engaged as lecturer and as a practitioner of surgery in St. Louis. He has operated for stone in the bladder seventy-seven times, the number of successful operations being seventy-three, only four deaths having occurred in his practice. This is certainly a very fair record.

In 1864 Dr. Pope again visited Europe, where he spent nearly a year, and returned to resume his profession in St. Louis.

Dr. Pope is yet in the meridian of his usefulness, an ornament to his profession, and a surgeon in all respects worthy of the success which he has rapidly and honorably achieved.

The facts here given have been obtained from the St. Louis Medical and Surgical Journal, in which was published, in January, 1866, an elaborate article, highly eulogistic of the distinguished gentleman forming the subject of this sketch.

USE OF BELLADONNA.—Dr. Geo. Harley (Medical Times and Gazette) says, in regard to the use of belladonna, that no other medicine is equal to it as a powerful *cardiac stimulant.* He recommends it in cases of syncope and cardiac asthenia; one hundredth of a grain of the sulphate is sufficient. It excites the torpid kidney and feeble circulation, on account of its diuretic qualities. In acute nephritis, the nervous agitation is calmed by it. The excretion of albumen is lessened in chronic albuminuria by its use. In all conditions of the kidney it is a safe article to give, as it has a tendency to keep the organ in a healthy state. Oxidation in the system is promoted. In uric acid and lactic acid diathesis it is very beneficial. By injecting one-fortieth to one-fiftieth of a grain of the sulphate in the region of the joints affected with rheumatism, the pain vanishes.

TREATMENT OF CORNS.—In the treatment of this troublesome affection, Dr. E. Wilson says: "That to remove the cause is a favorite dogma of medicine; but the removal of the cause is not always practicable; hence we must study how we can best afford relief to these troublesome disorders. The laminated corn, or callus, produced by pressure, congestion and increased formation of epidermis, may be softened by moisture, as by soaking in warm water, by the application of a starch or soap poultice; and, being softened, the thick cuticle may be thinned by scraping with a blunt knife, or the albuminous epidermis may be dissolved by an alkaline solution with moderate friction. When the thickening has been reduced sufficiently, it may be kept down by daily washing with soap. The soft corn requires removal with the knife; if it be of moderate size, a single pinch with a pair of pointed scissors will effect its removal, while the hard callus will require patient digging with the point of not too sharp a knife. The eye of the corn may always be made visible by rubbing the part with eau-de-cologne, or spirits of wine, and any remains of the core may be detected in this way either during or after the operation. After the operation, the corn should be covered with a piece of soft plaster for a day or two, and a perforated plaster of buff leather or amadou subsequently worn to keep off pressure from the centre of the growth. The removal of a corn may be very considerably aided by the use of the compound tincture of iodine painted on the swelling. When the corn is painful, this application subdues the sensibility, and renders the corn dry and pliable, and easy of removal by means of a file. Soap and water, so useful to the skin in many ways, are especially serviceable to feet afflicted with corns, and particularly when they are soft corns. Daily washing with soap, and the subsequent interposition of a piece of cotton wool between the toes, may be considered as a cure for soft corns. In these cases the skin may be hardened by sponging with spirits of camphor after the washing. The cotton wool should be removed at night, and this is a good time for the use of the camphorated spirit.

Dr. Geo. Harley (Medical Times and Gazette) speaks in his lectures of conium as follows: "Muscular movements are depressed by hemlock, but the state of the muscles, whether in action or at rest, influences the effect. In man and in all animals the action of this drug is uniform. There is a lazy movement of the eyes, and occasionally strabismus, with depression of the motor function of the third nerve, after the use of it. Alcohol acts on the motor system only secondarily, and the action of conium is not affected by it. Sleep is the result of the full action of hemlock; to the corpora striata the whole of the motor tract, and the smaller nervous centres, it is what opium is to the brain—it renovates and calms the whole nervous system. Muscular activity influences the action of conium more than muscular power. It affects the delicate, but active, less than the sedentary, with great strength. The dose must be graduated to the amount of motor activity of the person; the bodily activity of the of the individual may be measured by conium. The cerebral effects of hemlock are absent; it diminishes the irritability of the spinal cord; distinct interference with the sensory functions is not evident. He regards it as a child's remedy. To a child, one and three-quarter year old, suffering from laryngismus stridulus and convulsive cough, he began with twenty minims, then thirty minims, forty minims, and increased it to two fluid drachms and a half. Not until forty or fifty minims were given was there any discernible effect. In the first five weeks (previously one in two weeks) there was one attack, and the recovery of the child was complete."

Dr. Gruber, of St. Petersburg, (Medizinische Jahrbücher, hf. 1, 1868,) has discovered but twenty-two cases of congenital deficiency of one testicle (monorchia), after carefully overhauling the literature of the last three hundred years. He asserts that the subjects of this malformation and defective structure are generally well developed and arrive at an advanced life. The testicle is generally absent on the right side and the scrotum is well developed. The genital organs and seminal apparatus on the opposite side do not often show any associated anomalies. The size and form of the vesicula seminalis corresponding to the affected side is generally normal, and *it acts as a secreting gland.* After an examination of the fluid taken from the vesicula seminalis on the side of the monorchia, no spermatozoa have been found, although these bodies are found in the opposite gland. If the opposite testicle is perfect, a person with congenital monorchia is fully capable of procreating.—*Ex.*

Electricity in Poisoning by Opium.—The Annales de l'Electricité call attention to the value of this agent in opium-poisoning. It narrates four cases where it was successfully employed when the patient was *in extremis*, and when all the usual means, vomiting, stomach-pump, coffee, tannin, etc., (belladonna not mentioned) had been tried, and failed. One pole was placed at the nape of the neck, and the other in the perinæum, and in a quarter of an hour the improvement was such that the patient was out of danger.—*Ex.*

Substitute for Chlorodyne.—Mr. Edward M'Inall, a pharmaceutist of Philadelphia, recommends the following as a substitute for the chlorodyne of J. Collins Brown: Sulphate of morphia, gr. lxiv; alcohol (ninety-five per cent.,) f.oz. ij; purified chloroform, f. oz. vj.; sulphuric acid, q. s.; extract of cannabis indica, (Allen's,) dr.ss.; oleo-resin of capsicum, gtts.xij; hydrocyanic acid, (Scheele's,) gtt.xcvj. Shake together the sulphate of morphia, alcohol and chloroform, then add the sulphuric acid, shake well until it becomes clear, then add the oleo-resin of capsicum, extract of cannabis and hydrocyanic acid.

This forms a clear, dark, green liquid, possessing the acrid taste of capsicum, and the odor of chloroform. A drachm contains about a grain of the sulphate of morphia, and the dose is given at from fifteen to thirty drops (minims).—*Ex.*

MEDICAL NEWS.

"Nulla Dies, Sine Linea."

American Medical Association.—Dr. J. M. Keller, of Louisville, writes that in response to a letter written by him to the general passenger agent of the Louisville and Nashville railroad, that gentleman instructs him to notify all delegates to the convention, to be held in New Orleans, on the 4th of May next, that the said railroad will convey them to and from the latter city at half fare, or, in other words, full fare to go and a free pass to return. Dr. Hibberd, of Richmond, Ind., writes that delegates will be taken by steamer at half-fare and returned on same terms.

THE number of graduates at the colleges mentioned herewith, are respectively as follows: Bellevue, N. Y., 124; College of Physicians and Surgeons, N. Y., 95; University of New York, 84.

THE Medical College at Memphis, Tennessee, has been reorganized. The faculty are now as follows: Professors B. W. Abert, A. H. Voorhies, Frank A. Ramsey, Alexander Rives, D. A. Saunders and R. B. Maury; gentlemen well and most favorably known to the profession. The last class was necessarily small; graduates three. Prof. Rives delivered a chaste and excellent valedictory.

THE course of lectures in the Medical College of Virginia has recently terminated, and the commencement exercises were held on the 11th of March. Degrees were conferred upon fifteen graduates. The valedictory was pronounced by Prof. O. F. Manson, and is described as being "replete with excellent advice and reflecting great credit upon himself."

THE Kentucky State Medical Society meets April 6th, 1869, at Lexington. Provision has been made by the committee of arrangements (Dr. L. R. Todd, chairman,) for a large number, and it is hoped that all who can attend will be present. Delegates will be returned gratuitously by the railroads.

THE editor has, after much trouble and correspondence, succeeded in obtaining two regular foreign correspondents for this Journal. One of them is the Paris correspondent of the London Lancet. The other is a distinguished American physician, who after graduating at one of our best colleges, graduated next at Freiburg, in Germany, and finally, with marked honor, at the School of Medicine in Paris. The cost is great, but subscribers justly value these instructive letters.

THE Alabama Medical Association has recently had, at Mobile, a most admirable, harmonious and useful meeting. Dr. R. F. Michel, formerly of Charleston, S. C., was unanimously elected President for the ensuing year. This election was as creditable to the Association, as it is to the gentleman mentioned. As a teacher and practitioner, Dr. Michel has enjoyed excellent opportunities; he has used these with great credit to himself, and in such a manner as to win the respect, esteem and confidence of his brethren. His contributions to medical literature have been frequent and highly commendable. This Association has pledged itself to send a full and able delegation to the American Medical Association. The present officers of the Alabama State Associasion are as follows: Drs. R. T. Michel, President; G. E. Kampe, 1st Vice President; W. P. Reese, 2d Vice President; J. F. Heustis, 3d Vice President; Jerome Cochrane, 1st Recording Secretary; T. T. Searcey, Tuscaloosa; 2d Recording Secretary; J. S. Weatherly, Corresponding Secretary; W. C. Jackson, Treasurer; George A. Ketchum, Orator; R. T. Abernethy, Alternate; J. M. Williams, Valedictorian; J. Paul Jones, Alternate. The Association meets in Montgomery, March, 1870.

MEDICAL COLLEGE OF VIRGINIA—SUMMER SCHOOL.—The friends of this school will be gratified to learn that Drs. F. B. Watkins, T. G. Skelton and George Ross have recently been united with it as teachers respectively of obstetrics, physiology and anatomy. Associated as they now are with Drs. J. S. Wellford, M. L. James, R. S. J. Peebles, J. R. Page and W. H. Taylor (teaching respectively materia medica, practice, diseases of women, surgery and chemistry), there is every reason for believing that they will bring increased efficiency to the discharge of duties well performed, hitherto, by their colleagues and predecessors. These gentlemen are well known to the writer and he can confidently recommend students to secure their services. The next session commences April 1st, 1899.

LOUISVILLE MEDICAL COLLEGE.—Prof. C. W. Wright, an excellent lecturer, and recently a teacher of chemistry in the Medical Department of the University of Louisville, has resigned his position and is to teach the branch indicated in the Louisville Medical College.

THE KENTUCKY SCHOOL OF MEDICINE.—At the regular annual commencement, held on the 24th of February, in the college hall, the degree of doctor of medicine was conferred on thirty-two graduates. The ad eundem degree was conferred upon five physicians, graduates of the University of Louisville. The admirably contested first-honor prize was conferred upon Dr. Henry K. Leake, of Mississippi, and the prize for the best thesis was handsomely won by the same gentleman. The valedictory for the faculty was pronounced by Professor W. Talbot Owen. It was a scientific and admirable address, reflecting great credit upon Prof. Owen and enjoyed by a large audience. The house was so densely crowded that large numbers were unable to obtain admission. The Dean, in his excellent address, represented that the Institution was entirely out of debt, with a surplus in the treasury. The degrees were conferred by Hon. W. R. Thompson, Esq., acting President of the Board of Regents, who delivered to the students a practical address, replete with wisdom and appropriate advice. The exercises were terminated by a chaste and excellent address to the class from its own valedictorian, Dr. P. Butler Turpin.

THE Archives of Ophthalmology and Otology (a semi-annual periodical) is to be issued simultaneously, and edited jointly, in New York and Heidelburg. Each number will contain 300 pages; fully illustrated, with chromo-lithographic plates (European) of an expensive character. This work will be very superior in all respects. Its price will be $7.00, in advance. The excellent house of W. Wood & Co. will issue the work in America.

PROF. FRANCIS T. MILES.—This able and superior lecturer has resigned his chair in the Medical Department of Washington, University, Baltimore, Md., and has been elected to the chair of physiology in the Medical Department of the University of Maryland, in the city mentioned.

THE Clinico-Pathological Reporter is the title of a small newspaper recently established at Jefferson, Texas, by Drs. J. A. Richardson and V. E. Henderson. The first number contains a very creditable article from Dr. S. Eagon, of Jefferson, Texas. The editors have our best wishes.

Dr. Thos. E. Jenkins, of Louisville, Ky.—This eminent chemist and skillful pharmaceutist has just been elected by the Society of Pharmacy of Paris, as one of its foreign correspondents. This is a handsome compliment; and it has been handsomely won. Dr. Jenkins is confessedly worthy of the high honor bestowed upon him.

The St. Louis Medical Reporter has been changed from a semi-monthly to a monthly work. The new editors are Drs. W. M. M. Pheeters and G. M. B. Maughs, gentlemen so well and favorably known to the profession as to require no commendation. The journal is in able hands and deserves abundant support. Its present editors are welcomed into the editorial circle and the retiring editor, Dr. O. F. Potter, carries with him, in his retirement, the regrets and good wishes of all familiar with his estimable record.

Prof. Joseph Jones, of New Orleans, will give a complete course of lectures on "physics; experimental and analytical chemistry; pharmacy; toxicology; physiological and pathological chemistry, and microscopy, commencing April 1st and ending July 1st, 1869; fee, $50 for course; $20 for one month. The record of Dr. Jones is such as to need no commendation. His course will be admirable, practical and useful. The attention of students and preceptors is particularly directed to it.

Medical Department of the University of Louisville.—The lectures in this Institution terminated during the last week of February. The class was a large one; much larger than has been assembled for many years; it numbered 230; the number of graduates was 70. The valedictory was delivered by Prof. L. P. Yandell, Jr., and was highly commended by a very large, brilliant and appreciative audience. An admirable class valedictory was pronounced by Dr. Mahl. The accomplished president of the Board of Trustees, after an excellent address, conferred the degrees.

EDITORIAL.

"Nullius Addictus Jurare in Verba Magistri".—HOR.

THE editorial department is cheerfully surrendered to give publication, as has been requested, to the able, important and interesting letters herewith submitted.

The first letter is from Dr. W. O. Baldwin (president of the American Medical Assiciation) to the editor; asking that the correspondence sent be published. This letter is submitted with great reluctance, as, in doing so, the editor violates a rule, hitherto inviolably observed; the rule of carefully withholding from the public, all letters or papers which are commendatory either of himself or of the journal under his charge. Such letters are constantly received, but delicacy, propriety and self-respect (independently of a proper appreciation of the just censure of the public for this common, but unworthy custom of the press) have prevented all public or even private allusions to them. No one can be more fully or practically appreciative of all the proprieties of private and professional life than Dr. Baldwin, and this conviction, (the conviction that this gentleman is incapable of making a request which could not properly be granted,) conjointly with the reasons which he has given in presenting his request, has induced the editor to publish the letter, as desired.

The second letter is addressed by Dr. Baldwin to Dr. Nott, a resident now of New York, but formerly a resident of Mobile, Ala. In this letter, Dr. Baldwin endeavors to give fully the sentiment of Southern physicians in regard to the Association; to analyze this sentiment; to review the course of the Association in the past few years, and to request from Dr. Nott full information, in regard to the sentiment of his friends and present associates. This letter of Dr. Baldwin is highly creditable to him as a writer, as a citizen and as a distinguished member of the profession.

The third letter contains Dr. Mott's reply; a reply valuable and interesting, as coming from this eminent physician, warm-hearted friend and good man.

[LETTER 1.]

MONTGOMERY, ALA., March 15, 1869.

Dr. E. S. Gaillard, Editor Richmond and Louisville Medical Journal:

MY DEAR SIR: I send you this letter and the inclosed correspondence between Dr. J. C. Nott and myself, for publication in your journal.

You must pardon me, dear doctor, for the personal allusion contained in this correspondence to yourself. From the fact that you were an active participant in the late war and suffered deeply by its results, and from the additional fact that you have occupied a prominent position in the medical profession before and since the war, I thought I might take the liberty of referring to you as a true representative of the professional sentiment of the South.

For the same reason I addressed a communication to Dr. Nott, (formerly of Mobile, now of New York,) whom it is well known, was a staunch adherent of the Confederate cause; who, at the advanced age of sixty years, gave up his professorship in a college to which he was devoted and of which he was the founder; relinquished his large and lucrative practice and neglected his then ample fortune to take a commission in the army of the South; serving in hospitals, in camp, on the march, in the front or wherever he was ordered, with all the devotion and faithfulness of his enthusiastic and honest nature. He had but three children, all sons; one lost an arm in infancy; the others, promising in a ripening manhood all that a father's heart could desire; both of these went to the field at the first call for troops and both perished in the army.

When such men as yourself and Nott, from the medical profession, and Gen. Wade Hampton, from the head and front of the army—all *representative men*—men who have, in the time of her greatest need, rendered distinguished services to the South, who have been torn and mutilated in person, lacerated and crushed in affections, wrecked and ruined in fortune, can take the proffered hand of friendship and urge conciliation, harmony and fraternization for the good of science and the welfare of the country, I think the personal allusion which I have made to you is pardonable, while it should put to the blush those few "who still urge discord and alienation."

I do not think that a charge of egotism could lie against you in consequence of your publishing what *I think* or say of you. In justice to me you can not omit the reference to you, for, by so doing, you would manifestly defeat one object of the letter. I have seen proper to use your name as a *representative man*, and in a manner to serve a purpose which is obvious throughout the letter, and the *facts warrant the allusion.*

I am, dear doctor, very sincerely yours,
W. O. Baldwin, M.D.

[LETTER 2.]

Montgomery, Ala., March 2, 1869.

Dr. J. C. Nott, New York:

My Dear Doctor: As you are aware, the next meeting of the American Medical Association, is to be held in the city of New Orleans, on the first Tuesday in May next, and I write to urge you to be present on that occasion. Your numerous old friends in the South would be most happy to meet you there; to shake you by the hand in this fraternal reunion, and to welcome you again to the scenes of your morning life. It must be gratifying to you to know, my dear, good old friend, when, in your solitary moments, memory sometimes takes you back to the home of your youth, (to review the incidents of almost a life-time spent in active and arduous professional duties,) that your cotemporaries here, who witnessed your devotion to the cause of science, whilst they appreciated the value of your labors, still hold in most affectionate remembrance that honorable courtesy and charity which ever distinguished your conduct towards your professional brothers. I am glad to be able to say, my dear doctor, that the spirit of your example still lives with us and, I believe, will teach us from the grave; will teach those who still labor in the fields you have left, when life with you shall have ended its hardest lessons. Nothing, I assure you, would give me, individually, more pleasure than to see your honest face on that occasion. It will be such a fitting time for you to meet us, and one which will probably never present itself again, when you could see so many of your old friends.

My correspondence has been somewhat extensive during the past eight or nine months, and I feel justified in saying, that the great mass of the profession South is in full accord and sympathy with the Association. You may have seen some little dissatisfaction expressed in newspapers over a *nom de plume*, indicating the author to be a physician, but I assure you such sentiments are confined to but very few and have failed to reach the great heart of the profession. I was grieved, however, to see even this manifestation of opposition to the great representative interests of the medical professsion of this country. It has no root and can bear no fruits in science or general beneficence.

This dissatisfaction grew out of the action of the Association at its meeting in 1864, in relation to a preamble and resolutions introduced by Dr. A .K. Gardner, of New York. These were, in fact, a remonstrance against the war ethics of the Government, and, in substance, provided that the President of the United States, heads of Departments and members of the United States Senate be requested by the Association to "take such action as shall cause all medicines and medical and surgical instruments and appliances to be excluded from the list 'called contraband of war.'" The action taken on these resolutions by the Association was to lay them on the table indefinitely, and which, in parliamentary *parlance*, I believe, means that it was "not desirable to consider them" at that time. From this action, some have contended that the Association lent its influence and support to sustain the Government in this feature of its ethics of war.

The beautiful preamble and resolutions referred to, as having been introduced by Dr. Gardner, are certainly a most graceful proof of a noble and generous mind, and must be regarded by all as the offspring of the purest and most unselfish charity and benevolence. Yet how far the language used by others in commenting upon this action of the Association is justified by the facts; how far this body lent its influence and support to the Government in the policy complained of, or to what extent it committed itself to the principle, by laying these resolutions on the table, are questions which may very well admit of differences of opinion.

No member can claim for the Association exemption from fair, frank and honorable criticism, and when thus conducted amongst ourselves, or through the legitimate channels of *medical* periodicals, with moderate language and in a courteous and respectful temper, I can see no objection to it and think it may in the end lead to harmony of sentiment and unity of purpose. I have been particularly grieved, however, to see that some, in their zeal to discuss the points above referred to, have resorted to the columns of *newspapers*, (devoted to common and general politics,) for this purpose. The public feel no particular interest in controversies like this, and, in the language of our code of ethics, "as there exists numerous points in medical ethics and etiquette through which the feelings of medical men may be painfully assailed in their intercourse with each other, and which cannot be understood or appreciated by general society, * * * * * publicity in a case of this nature may be personally injurious to the individuals concerned and can hardly fail to bring discredit upon the faculty." These injunctions, though applying to our daily intercourse with each other, are equally applicable to us in our associated and general relations.

I am not prepared to say what the usages of modern warfare are on the points raised in Dr. Gardner's resolutions, or whether there are any recognized or established ethics among civilized nations on this subject. But that it is in accordance with the purest and highest dictates of humanity for belligerent powers to allow the enemy's sick and wounded to be supplied with medicines and surgical appliances from within their own lines, when they cannot be otherwise obtained, I think none will deny, unless the supply be at a time when such action might thwart the movements or prejudice the safety of an army. And, if the duty of regulating such matters had been assigned to the American Medical Association, or even to the army medical corps, and they had established or advised the establishment of an ordinance making these articles contraband of war, I should feel that their action had not harmonized with the spirit which has ever characterized the conduct of our profession toward suffering humanity.

This, however, was not the case, and I can very well imagine that those who voted against the Association taking the action urged in the preamble and resolutions referred to, could give good reasons which influenced them, at that particular time, to desire no complication with their Government upon a question, in the discussion and decision of which they were regarded as in no way authoritative, and the direction of which had been assumed by high government officials, who had long since established and practiced a policy in reference to it.

I assume then the broad ground, that it was a question with which the Association had nothing whatever to do, and one which was not properly before it for discussion; and, it seems to me, that it was expecting too much of our Northern brothers to suppose, that they, at a time when all the sinews of war were called most vigorously into execution, would place themselves in antagonism to their government upon a question which was entirely outside of their *professional position and accredited duties.* In doing so, they certainly would have been transcending their legitimate sphere and meddling with the prerogatives of those to whom the regulation of the ethics of war had been assigned and who claimed exclusive jurisdiction over the question.

Subjects of this kind certainly formed no part in the plan of their organization. They were there solely for the purpose of discussing questions purely scientific and professional, and not such as grow out of civilized warfare. Whatever, therefore, was objectionable in the ordinance alluded to, the high functionaries of the government were alone responsible for it. It was a political and war measure with which the Association had no more to do than did the Pope of Rome or the worshipful grand master of a Masonic Lodge or any other humane and charitable individual, or Christian and benevolent organization in the land. In fact, every man in Christendom, was as much bound to remonstrate with the Government for any violation of the rules of civilized warfare, as were the members of the Association.

It is a very serious and forced conclusion to say, that the Association gave its influence and support to the Government to maintain it in this policy, simply because it refused at that particular juncture to enter its protest against it, by the adoption of these resolutions. If, *as an Association,* they had assumed a vindictive or hostile attitude towards the South and advised the adoption of this or any other cruel or unjust procedure on the part of the Northern government, there would have been just reasons for complaint on the part of Southern physicians. This, however, was not the case. The Association simply held itself *firmly* to its *professional position*, to its *acknowledged sphere*, to its *accredited duties*, and refused to go outside of that position to discuss a question which concerned that body no more than it did any private individual in the land.

It is not wise, nor is it required by any creed of general courtesy or ethics, that honor shall always forbid that which honor fails to sanction. Men are not expected or required to denounce every measure of which they cannot approve. There are often good reasons why they should not. Are they then to share the odium of measures entirely foreign to their sphere and beyond their control? There is certainly much difference between the man who commits crime and him who fails to remonstrate with the criminal! As well might we reproach and rebuke the high court of chancery, for failing to lecture the world on the subject of religion, the giving of alms to the poor, or, for any other philanthropic work which might be calculated to lessen the woes and mitigate the sufferings of fellow beings.

Society, and especially governments, has assigned to different individuals and classes their peculiar sphere and respective duties, and the world owes much of its harmony to this fortunate arrangement. We have our own code of ethics and etiquette and our own standard of morals, and, if we adhere strictly to these, we cannot interfere with the ethics of war established by ordinances of government. One of the great reconciling principles in the philosophy of life is a proper regard for the rights, duties and principles of others. Whilst, by the very nature of our calling, we are intimately connected with the interests of humanity and should labor by every means rightfully at our command to promote its benefactions, we must be careful in our zeal for a good cause not to hazard the position and influence already gained, by invading the precincts and prerogatives of others.

The restraints and usages of governments in times of war may seem to us, in many particulars, unnecessarily harsh, oppressive and cruel, and. indeed, what civilian ever witnessed the operation of martial law who could not find grave objections, both to its humanity and equity? But when these have been ordained by persons to whom we are only subordinate, we cannot be responsible for results, and should, in no way, share the odium, simply by failing to place ourselves in open antagonism to them.

As long as we labor with all the professional, intellectual, and moral efficiency at our command, for the fulfillment of duties properly within our legitimate and recognized sphere, we shall have accomplished all the good for humanity that the world can reasonably expect or require of us.

But even suppose the Association did commit an error, in fact and in spirit, in failing to remonstrate with its government as stated, where is the wisdom, at this day, of opposition to its future and permanent interests? Suppose that the feeble assaults which have been made upon it should swell into an hostility whose magnitude should in the end mar its progress, compass its disorganization and defeat its claims to a grand nationality, who could receive credit for such a work? Where would be the glory of success or the fruit of such victory? Could science, could humanity, could the country thank one for such a service?

What has brought the science of medicine to its present state of advancement but the labor of *intellects combined in organization?* Like the tiny insect which lays up its stores for the wants of winter, we too must acknowledge the great law which sanctions the wisdom of associated labor. The imperishable grandeur and usefulness of all sciences owe their highest development to organized effort. The future glories of the science of medicine in this country, lie embodied in powers yet latent in organization, and he who seeks to disturb this great element in its prosperity is no friend to progress.

The animus of the Association has shown itself to be honorable and kind in every reference made to its Southern members, during and since the war; honorable to itself, honorable to the profession, honorable, just and generous to the South. When I went to its last meeting (in Washington) I did so from a sense of duty and with the earnest desire of seeing the two sections united in their professional relations and purposes. I did not solicit any honors, and asked no man to vote for me for any office. Yet with a meagre representation from the

South, they conferred upon me the highest office in their gift. I knew myself to be unworthy of the high distinction and felt it was not intended for me. I knew it had a broader and higher significance than that of a mere tribute to personal and private ambition. I knew it to be in keeping with that kindly spirit displayed by the Northern delegates towards their Southern brethren throughout their "Transactions," and that it was but a fresh offering of the olive branch of peace. In this spirit, I accepted it. No man asked me anything in relation to my political sentiments. I cannot boast of performances in the late struggle, but I have never disguised the fact from any one, that in all the earnest desires of the heart which constitute devotion to a cause, I yield to none in my loyalty to that which has gone down in the gloom of defeat and for which those tender youths, your son and mine, fought side by side, and fighting fell for principles held dear by you and by me. I would not stultify myself on this point for all the honors which could be heaped upon me by the medical profession, or by any other class of men. Nor do I think my Northern brothers would respect me more for being false to my section. In the death of my boy, I found the hardest heart-sorrow of my life, and the weary years which have since passed by have been powerless to still its anguish; and yet I could but feel a mournful pride in a knowledge of the fact, that he died on the field of glory and *true to the land which gave him birth.*

But the crushed affections and blighted hopes of the father, who has yielded a noble sacrifice to his country, as he sits in silent and sacred memory of his holiest grief, can find no relief by barbing the anguish of his heart with feelings of malice, hatred and revenge towards those, who in honorable combat, had been made the instruments of his sorrow. Natural affection does not require this; true manliness does not demand it.

No, Doctor, I do not wish to cherish feelings of bitterness with the memory of my son. I wish to forget all that is painful and harrowing to the heart and to remember him as he was, the soldier, patriot and Christian, falling in honorable warfare, and, that the hand which sent the fatal ball which deprived him of life, was that of some brave and generous spirit, moved by the same high purpose, the same stern sense of duty, the same devotion to principle and country, which guided and actuated him.

So far from entertaining sentiments of unkindness towards our brothers of the medical profession North, growing out of this affliction, my only feeling has been, that if any one of them had been near him in that dreadful hour, his highest care would have been to have drawn, if possible, the fatal ball from his breast and restored him to life and health.

How unwise and unprofitable it is to seek to mingle the temper of partizan strife with the affairs of a great science. If the gallant General Hampton, whose blood flowed so freely in the late war, and whose home, with the homes of his people, was consumed and made desolate by the flames of the Northern army, can speak gratefully of "the spirit of conciliation, the magnanimity and the kindness" of those "who recognize us as no longer foes but brethren," can, for his country's good, declare his willingness to bury "all past differences in one common grave," to "accept the right hand of fellowship * * so frankly extended," and greet, as a "comrade," him whose hand "so lately grasped the sword," but now "bears the olive branch of peace," shall we be so sectional and prejudiced as to nurse feelings of hostility towards a brotherhood, from whom we have ever received only evidences of marked kindness and honorable courtesy?

If the talented and independent editor of the Richmond and Louisville Medical Journal, Prof. E. S. Gaillard, who lost his right arm, when a medical director, in the discharge of surgical duties on the field of battle, thus depriving him of all hope of further advancement in the special department which had been the choice of his youth, for which genius, education and a thorough method had so well prepared him, and to which the achievements of early manhood had already given such brilliant promise of successful ambition; I say if he can advise, that we should cover over the past "with the mantle of personal and professional charity," that we should "take the outstretched hand, accept the offer of friendliness and reconciliation;" and that the reception of the "*medical men of America*," when they asssemble in New Orleans, in May next, should be "not only a hospitable reception, but a warm, a manly and a generous welcome," cannot those who never felt a wound, and can even jest at scars, lay aside feelings which can neither yield fruits to our noble science nor do honor to our manhood? Is any one vain or weak enough to believe that our Northern brothers will derive an advantage from fellowship, union and harmony which we will not share in an equal ratio?

Pardon me, dear doctor, for trespassing so long upon your valuable time. I know you will excuse it in the interest which you feel in the general prosperity of the medical profession of the whole country, and especially in the desire which you feel to see your Southern friends come fully up to their duty, in meeting the honorable advances which have been made by our Northern brothers, looking to a complete and perfect fraternization. I think the American Medical Association is to be the power, through which a greater good is to be accomplished for the profession in this country, than has yet been achieved. On this point you may perhaps hear from me at some future time. I will only say now, that its organization had its inception chiefly in an idea which has not yet been realized—that of elevating the standard of medical education in this country. But I believe its labors in this direction will yet be felt and acknowledged. To this end, *it must be national* and represent the interests of the profession in every part of the country. Those who comprehend the grandeur of its germ, appreciate full well the ultimate possibility of its nature, and will see to it, that the inspiration which gave it birth shall be worked to a final and successful end. The advancement of science, the affections of an enlightened brotherhood, the interests of society and the good of humanity are all united with it, and from every section I have the most gratifying assurances of a determination to bury all other sentiments in the one great purpose of promoting harmony and concert of action, with the kindest feelings of fraternal regard. Assure our friends of the North of this, and tell them we desire to meet them in large numbers in New Orleans in May.

With assurances of the highest regard, believe me, dear doctor, most sincerely and truly your friend,

W. O. BALDWIN, M.D.

[LETTER 3.]

NEW YORK, NO. 4 WEST TWENTY-SECOND STREET,
March 8, 1869.

W. O. Baldwin, M.D.:

MY DEAR DOCTOR: Your letter of the 2d has just come to hand. I hasten to reply by return mail.

Whilst I am fully sensible that your kind feelings for me have tempted you to speak in terms of praise beyond my merits, I have the vanity to believe that you do not over-estimate my high sense of obligation to our noble profession; my unceasing efforts to uphold its dignity, and my endeavors to promote friendly feelings amongst its members. I have always maintained that we could not deserve or command the respect of the world, unless we respected each other and preserved a proper *esprit de corps*.

When I was about to take my farewell of the people of Mobile, among whom I had lived for 30 years, the leading citizens gave me a public dinner and the members of the profession a handsome reception, at which I was presented with a piece of plate, on which was engraved the name of every regular practitioner of the city. This to me was a crowning glory of a long career, as it was grateful evidence to me that my constant efforts to keep the members of the profession together in brotherly love and usefulness had not been in vain.

You may well believe then, my dear friend, that your present efforts, in the same good cause, on a wider field, meet my hearty approbation and sympathy. I have nothing to suggest in addition to your excellent letter, which covers the whole ground at issue; it is temperate, honest, manly and in every way becoming the high and responsible position in which you are placed. I doubt not it will be responded by the profession North, South, East and West in the same spirit in which it was conceived.

The construction you have given to the action of the American Medical Association, on the preamble and resolutions of Dr. A. K. Gardner, to which you refer, corresponds precisely with that I have heard expressed by all the members of the profession I have met at the North. The time of the Association was fully occupied with matters that properly belonged to it, and these resolutions, trenched upon political or military considerations which were foreign to the business of the Association, which they could not influence. Any debate upon them might have led to unpleasant remarks from some impetuous member, and it was, therefore, best to lay them on the table. If such resolutions had been laid before any hundred members of our profession, during the war, at the South, what, let me ask, would have been the result? There is a statistical law that throws a certain per cent.

of unwise heads into every assembly of this kind, and the less opportunity they have of talking, the better.

Now, sir, I beg leave to say a word of my personal experience, since the war, at the North. Soon after the war closed, I was summoned to Washington as a witness in the Wirz trial, and seized the occasion to run over to Philadelphia to see what I could discover that was new, in the way of books, instruments, practice, &c., we having been shut out from the world for four years. Not only did the medical gentlemen of Philadelphia receive me politely, but they seemed to feel as if they thought I might feel some delicacy in presenting my rebel face in their midst, and were more desirous, than I had ever seen them, of treating me with hospitality.

About a year ago, I came to pitch my tent in the city of New York, determined to ask no favors of the members of the profession, and not one of them can say that I ever solicited an introduction to him; and yet it would sound like egotism were I to tell of half the respect, the hospitality and kindness I have received, both in and out of the profession in the city of New York. It is but justice to the faculty in New York to say that in tone, talent and attainment, it will compare favorably with that of the large capitals of Europe.

But, suppose we admit that the action of the Association on the resolutions of Dr. Gardner was dictated by sectional and unchristianlike motives; this does not alter the case. The war is over; our prosperity and happiness depend upon our return to the former status of the country, politically and socially; passion and prejudice should be laid in the grave with the half million of brave men that have been buried in the bloody strife. The olive branch has been gracefully and cordially tendered by our medical brethren at the North to those at the South, and it is your duty to accept it frankly and in good faith.

The medical profession has a great mission to fulfill. Medicine is not only a healing art, but is the mother of anatomy and physiology in their most extended sense: of botany, chemistry, mineralogy, geology, etc.; in fact, of all the natural sciences, from which have sprung the useful arts. It has been the great fountain, from which has flowed the elements of civilization, from the foundation of the Egyptian empire to the present day.

Now, my dear friend, will the medical profession at the

South be outdone in magnanimity? Will they permit a petty pique, or even the remembrance of a great civil war, in which, perhaps, we were all to blame, to cross the path of science, and to mar a great enterprise like that of the Medical Association?

God forbid! My many old friends must throw aside all minor considerations and come forward in sustaining your efforts to maintain the true honor of the South, the dignity of our profession and the cause of humanity.

Very truly, your friend,
J. C. Nott.

The irresistible effect of these excellent letters will not be disturbed, by comments; comments which the editor has been privately and particularly requested to make. It is known to those who have been readers of this journal, that the view advocated by Dr. Baldwin, in regard to the inexpediency and inappropriateness of any action on the part of the Association tending to remove the unfortunate policy of the Government (relative to withholding medical supplies, etc.,) has never been entertained by the editor. Such a view is not entertained by him now. Nothing so far presented has changed his conviction that it was the duty of this great representative body to have used its influence, its special education and that specific information unpossessed by any humane and charitable society or by unprofessional individuals, in inducing the American Government to abandon or modify the inexcusable policy adopted toward the sick of the Confederate army. None but medical men could accurately appreciate the disastrous effects of such a policy; the unprofessional (however variedly informed) are grossly ignorant upon this subject, when their information is compared with that of educated physicians. The public look to the profession for guidance on these subjects; they have a right to expect this guidance and it is the duty of medical men always to give it. There is an immeasurable difference between dictation to a Government on the part of a medical body, and the respectful, proper petition of such a body, based on information peculiarly and specifically possessed by its members. There is every probability that the Government would have been induced to modify its war-policy in regard to sick and helpless men, if the American Medical Association, in a respectful and proper petition, had placed it in possession of information exclusively at the command of physicians.

Whether the resolutions of Dr. A. K Gardner were "laid upon the table, indefinitely," from the dictates of partisan feeling; or, as the result of misapprehension in regard to their meaning; or from a limited attendance of those who would have sustained them; or from a belief that the action on the part of the Association was neither appropriate nor capable of effecting a different policy, it is now unnecessary to discuss. The true or actual cause of the result named (the laying of these resolutions upon the table indefinitely) can never be determined. Distinguished men everywhere have different opinions as to the motives, impulses, or reasons which actuated the members of the Association on that occasion; and as the causes of their decision can not be determined, it is unwise now to sit in judgment upon them. The best view to take of this subject is that so forcibly urged by Drs. Baldwin and Nott; that even if the worst motives induced such legislation, even if the parties to such action had all gone forth and been in every respect hostile, they would have done no more than was done by all earnest soldiers; soldiers whose hands have been fraternally clasped, by distinguished commanders in the Southern army. Shall the physician be the only remaining representative of bitterness in that army. The time has certainly arrived when all American physicians should harmonize; when Southern physicians should be as willing to confess their own undeniable bitterness and seek to forget it, as to charge their Northern brethren with a hostility not actually proved, and to ungenerously resolve never to forgive this; when Northern physicians should acknowledge, that if surrounded by similar influences, they would have acted as have done their Southern brethren.

Every physician wields an influence, not only in public, but at the firesides throughout his country. His teaching and example either refine and elevate the noblest elements in the character of his race, or they tend to degrade and brutalize them. How will he decide in this case submitted for his philanthropic and charitable consideration? How will he advise his friends to act? Those who know the temper of our profession will not hesitate for a reply. This reply, the writer predicts, will be nobly and historically recorded by the harmonious and crowded assemblage which meets in New Orleans on the 4th of May; which meets to write, in the annals of American medicine, sublime evidences of personal magnanimity, professional harmony and scientific progress.

THERE is an impression, with many, that books, etc., for review, always reach a journal, through authors or publishers. This is a great error. Some journalists take the extreme view, that material of this character should never be accepted from the sources indicated, as the very act of reception implies something of an obligation and forestalls criticism. Some authors take the same view and never allow their works to be "presented" to journalists. Lionel Beale and others of similar opinions, practically adopt this rule. Material for review is derived legitimately from a variety of sources, and authors or publishers, in asking for the source from which their works are derived, commit a comic and serious blunder. The request is predicated on the assumption that such matter is only to be derived from themselves, an error too palpable to require refutation.

Notice.—All essays to be submitted for award of prizes at the next meeting of the American Medical Association, should be forwarded, in order to reach the undersigned, on or before the 25th of April. S. M. Bemiss, M.D.,
Chairman Com. on Prize Essays.

Gynæcological Society of Boston.—The editor acknowledges, with promptitude and pleasure, the receipt of his appointment as "corresponding member" of this distinguished society. Its constitution and by-laws are excellent.

Deans of Medical Colleges are respectfully requested to communicate to this journal the size of their respective classes during the past session with the number of graduates.

BOOKS AND JOURNALS RECEIVED.

Introductory Lectures and Addresses on Medical Subjects. By Geo. B. Wood, M.D., LL.D., etc. Philadelphia, Lippincott & Co. From the author.

A Treatise on Diseases of the Ear. By Anton von Troltsch, M.D. Translated by D. B. St. John Roosa, M.A., M.D. Wm. Wood & Co., 1869. From the publishers.

Eulogy on the late Dr. Valentine Mott, M.D., LL.D. By Alfred C. Post. Bailliere Bros., New York. From the author.

Compendium of Auscultation and Percussion. By Austin Flint, M. D. Wm. Wood & Co., 1869. From the publishers.

Transactions of the American Medical Association, 1868. From the Secretary, Dr. Atkinson.

Quarterly Summary of the Transactions of the College of Physicians of Philadelphia, 1868.

Physical Survey of Virginia. Geographical Position of; its Commercial Advantages, etc. Preliminary report. By M. F. Maury, LL. D., etc., etc., Professor of Physics, Virginia Military Institute, Lexington, Va. Gen. Francis T. Smith, Superintendent—Richmond, 1868.

Medical Department of Georgetown Medical College, 1868-69. From Dr. Toner.

Svapnia or Purified Opium. By Dr. Bigelow, Detroit, Mich.

Annual Announcement of National Medical College, Washington, D. C., 1869.

The Dynamics and Principles of Organic Life. By Dr. Z. C. McElroy, Zanesville, Ohio, 1869. From the author.

Havard University Medical Department, 1869.

A Glance at Medical History. An Address by R. A. Wise, M.D., before the Richmond Academy of Medicine, 1868.

Annual Report of the Surgeon General U. S. A., 1868.

Memoir of Dr. Franklin Bache. By Dr. George B. Wood. Philadelphia, Sherman & Co. From the author.

Operation of Vesico-vaginal Fistule without the Aid of Assistants. By Nathan Bozeman, M.D. New York, Appleton & Co., 1869. From the author.

Pathological Phenomena Generalized. By H. Backus, M.D., Montevallo, Ala.

Annual Report of the New York Orthopædic Dispensary, 1869.

Intra-mural Fibrous Tumor of the Uterus Removed. By Prof. W. H. Byford, A.M., M.D. From the author.

Constitution of the Gynæcological Society of Boston, Mass.

Memoir of Dr. Valentine Mott, by Prof. G. S. Bedford. From the author.

W. O. Baldwin.

Hart & Mapother Lith. Louisville, Ky

THE RICHMOND AND LOUISVILLE

MEDICAL JOURNAL.

Vol. VII. MAY, 1869. No. 5.

ORIGINAL COMMUNICATIONS.

"Qui Docet Discit."

Art. I.—On the Use of the Calabar Bean in Tetanus. By Chas. R. Greenleaf, M.D., Brevet Major and Assistant Surgeon, U. S. A. [Read before the College of Physicians and Surgeons, Louisville, Ky.]

Not the least in the catalogue of diseases which we are compelled to chronicle as "almost invariably fatal," is tetanus. Its pathology is as yet so shrouded in darkness that we are excluded from the domain of rational treatment and forced into empiricism, the result being that our patients are either eased into their graves by the stupefying influence of opium or chloroform, or strengthened by kind Providence, battle successfully with their terrible adversary almost unaided by our medicines.

Successful empiricism is too apt to beget self adulation, and it is but human nature to take to ourselves the comforting reflection that the cure of many cases of this class of disease is entirely due to the remedies we have employed in the treatment—the efforts which nature puts forth being altogether ignored.

When, however, we have reason to hope that any agent will enable us to hold in abeyance the terrible *tonicity* of spasm so characteristic of tetanus, affording thus an opportunity to assist and support nature in her efforts to struggle with the disease, it becomes our duty to give it at least a fair trial, and by comparison of results assign to it such a place as its merits deserve.

From what has been already published and observed we have a glimmer of hope that in the use of the calabar bean we possess such an agent.

Tetanus, as you well know, is a disease characterized by powerful and painful tonic spasm of the voluntary muscles, or as Dr. Frazer, of Edinburg, in his admirable article in the *Practitioner*, for August, 1868, describes it "a disease characterized by an exaggeration of the reflex function of the medulla spinalis, medulla oblongata, and certain lobes at the base of the brain. A close analogy exists between it and that condition of exaggeration of reflex excitability which is produced by the action of strychnia. This supports the idea that although tetanus may be often due to appreciable lesions of the central nervous system either connected with, or independent of, irritating diseased condition of the peripheral nerves, it may also exist without any discoverable lesions. Exaggeration of the reflex function of the central nervous system, resulting in spasmodic contractions appears to constitute its essential characters." Its exciting causes are wounds and injuries, exposure to weather, irritation of worms, suppression of natural discharges, etc. Its pathology, we may safely say, is unknown.

In its treatment, opium, tobacco, belladonna and their alkaloids, cannabis indica, curara, chloroform, etc., have been used with more or less successful results, but for no one of these can a much greater superiority over its fellows be claimed.

Prof. Gross, in his System of Surgery, vol. I, p. 775, says: "If we occasionally meet with an instance of recovery, the circumstance is to be regarded only as an exception to a general law of the mortality in this affection. In an experience of thirty-one years, I have seen but two cases where the patient escaped with his life, and then only after a protracted and painful struggle."

Mr. Erichsen says*: "In the more acute forms of tetanus all remedies appear to fail. * * * In the subacute and chronic forms recovery *may* take place." In the article tetanus, in Holmes' System of Surgery,† Mr. Poland says: "Nothing seems to check its regular course; there is no control in its unvarying and too often fatal career; it will have its sway."

The calabar bean, from its known action in powerfully and directly diminishing the reflex action of the cord, and destroying the conductivity of motor nerves, was suggested by Dr. Frazer as worthy of trial in this disease.

For a description of the bean and its properties, I quote in substance from the last edition of the U. S. Dispensatory:‡

"The calabar bean is the fruit of a vine growing in Africa, to which the name of Physostigma Venenosum" was given by Dr. Balfour, of Edinburg, who, from the bean produced, in 1859, at the Botanical Gardens at Edinburg, the plant. The bean derives its name from the region of country in which it is used as an ordeal by the natives. "It is about the size of a large horse bean, being somewhat more than an inch in length by three-fourths of an inch in breadth, with a very firm, hard, brittle, shining integuments of a brownish-red, pale chocolate, or ash-gray color. The shape is irregularly kidney form, with a longer convex and a shorter concave edge, two flat sides and a furrow running longitudinally along its convex margin, and ending in an aperture near one of the extremities of the seed; within the shell is a kernel consisting of two cotyledons, weighing on an average about 46 grains, hard, white and pulverizable, of a taste like that of the ordinary edible leguminous seeds, without bitterness, acrimony, or aromatic flavor." The bean yields its virtues to alcohol and imperfectly to water, and "is the only part known to possess medical virtues." Dr. Frazer, in experiments on rabbits, found the shell "to purge, increase the flow of urine and produce temporary paralysis of the extremities, but without loss of consciousness, and although a drachm was given it did not produce death."

---

* Loc. cit. p. 578.

† Loc. cit. vol. I, p. 320.

‡ Loc. cit. p. 1480.

"The prominent effects of the kernel were obviously on the spinal marrow, and of a depressing character. They were paralysis, loss of reflex action, contraction of the pupil, occasional evacuation of the bowels, with retention of consciousness until all power of expression ceased." The integument of the seed differs from the kernel in being actively cathartic.

Upon the human system these effects are nearly similar; giddiness, weakness and fainting, paleness of the surface, extreme weakness and irregularity of the pulse, and indisposition or inability to make voluntary muscular exertion were the effects experienced by Dr. Christison after taking twelve grains of the kernel, and Dr. Frazer experienced effects of a similar nature from smaller doses.

The heart acts sometimes irregularly or tumultuously, and sometimes less frequently. A peculiar epigastric sensation is generally experienced as the first symptom, gradually increasing and becoming at length almost painful, while profuse sweating and the expectoration of mucus, tinged with blood are concomitant symptoms; the most satisfactory evidence, however, of the action of the drug upon the system, is the contraction of the pupil.

The first use made of this agent in tetanus was by Mr. Holmes Coote, in March, 1864; it was soon afterwards used in France, and then more extensively by Dr. Eben Watson, of Scotland. Mr. Coote's case has, however, been excluded from the list of cases treated (and very justly so in my opinion) because it was only used one day and a half, and then in conjunction with other remedies; the case terminated successfully. Mr. Frazer reports in his paper twelve cases of tetanus treated by this agent, nine of which recovered and three died; the length of time during which the bean was given is only stated in five of the successful cases and was as follows: forty-one, fourteen, twenty-eight, twenty-seven and twelve days; the length of time it was given in the fatal cases was four, three and part of one day.

"In judging of the value of physostigma from the experience afforded by these cases," states Dr. Frazer, "it is essential that we place aside case 8, in which no benefit could be possibly derived from any drug, as the symptoms were too far advanced before the treatment was commenced, (the patient was almost 'in articulo mortis' when treated). There remain eleven cases in which physostigma was used, and of these nine recovered, and only two died; of the fatal cases, that of M. Bourneville, was complicated by the serious condition caused by an amputation of the thigh subsequent to an injury to the knee-joint. Dr. Bouchat's case does not illustrate in a satisfactory manner the power of this remedy. It was given by the mouth in the form of extract, and although in considerable doses, there is no evidence of any physiological effect. Beside, the treatment by calabar bean was only commenced four days before death and after other means had been employed in the preceding six days of the disease." To these twelve cases I have to add seven others:

Case 1. German lad, aged fourteen years, received a lacerated gunshot wound of the left hand, implicating the thumb and adjacent soft parts; tetanic symptoms manifested themselves on the fifteenth day after the injury, at which time the wound had healed by granulation, excepting a small portion about the size of a silver quarter-dollar. The masseter muscles are very rigid, forehead wrinkled, risus sardonicus extremely well marked, back arched and muscles stiff, adbominal muscles rigid and breathing hurried and jerking. While examining him, a severe fit of opisthotonos came on. The treatment was commenced with extract canabis indica one-half grain and calomel one grain, to be repeated every hour. Second day—the hemp was increased to one grain doses; the paroxysms, however, became more severe, following each other in rapid succession and threatening hourly to destroy the patient. The only movable parts of the body were the arms; pain became intense and was located at the epigastrium and back of neck; pupils dilated. At midnight, after witnessing a distressing paroxysm, it was determined to try the calabar bean. The tincture in 10 and 15 drop doses was given every hour. Third day—no improvement being observed, although the tincture had been pushed to thirty drops every hour, one-fortieth grain of atropine was administered hypodermically, and in six hours was repeated in conjunction with the bean. Fourth day—the tincture in use being evidently inert, a stronger tincture made by Mr. Jenkins was obtained and given in doses of fifteen drops hourly; this was followed by improvement, and on the sixth day the patient was decidedly better, the characteristic symptoms of the action of the bean manifesting themselves in contraction of the pupil and relaxation of the muscular system. Seventh day—The tincture was found to disagree with him, producing vomiting and copious discharges from the bowels, green and frothy, and the extract was substituted, the administration being hypodermic in one-quarter grain doses. Continued to improve, and the twelfth day, the supply of extract being exhausted, the powdered kernel in two grain doses, every three hours, was given. Eighteenth day—dose of powdered kernel increased to three and a half grains every three hours; patient still improving. Nineteenth day—obliged to discontinue the use of the bean because of the supervention of diarrhœa. Twentieth day—resumed its use in the form of extract, a supply of which had been received from Cincinnati, and continued its use until the twenty-fourth day, when the patient was considered convalescent. The above account is taken from notes furnished me by Dr. Larrabee, of this city, under whose charge the case was, and who very kindly permitted me to see the patient several times during the progress of the disease.

Case 2. A girl, aged fifteen years, admitted to Westminster Hospital, September 14, 1867, having received a contused and lacerated wound on the occiput one month previous. Three weeks after receiving the wound, tetanic symptoms appeared, and, three days after that, the treatment by calabar bean was commenced in one-eighth grain doses of the extract every hour and was continued for three days; after which other treatment was instituted. On the 14th day, the patient died. A post-mortem examination revealed a piece of hair-pin about an inch long, imbedded in the situation of the wound. The case was treated by Mr. Francis Mason, and reported in the London Lancet, for December, 1868.

Case 3. A man, aged forty-seven years, sustained extensive injury of the ligaments and muscles of the right wrist, compound dislocation of the thumb, and other wounds, by a fall from a horse, tetanic symptoms developing thirteen days afterwards. On the sixth day of the disease, one-sixth grain of extract of calabar bean was given every hour, and continued three days without much relief, when the dose was increased to one-fourth grain every hour, with considerable relief; tenth day, dose increased to one-third grain every hour; fourteenth day, dose increased to one-half grain every hour; seventeenth day, after severe spasms, dose increased to two-thirds of a grain; the patient, however, grew worse and died on the nineteenth day. The case was treated by Mr. Ridout and reported in the London Lancet, for January, 1869. There is no evidence in this case that the physiological effect of the bean was produced.

Case 4. A man, thirty-three years of age, received a wound of the scalp from a fall off a coal stack; two weeks after which symptoms of tetanus appeared. He was ordered one-sixth of a grain of extract of calabar bean every one-half hour, with strong beef tea, milk, eight ounces port wine and four ounces brandy. Second day of the disease, dose of the extract increased to one-third grain and wine and brandy doubled. Third day, not much improvement and one-third grain extract was injected hypodermically; "in five minutes the legs, previously rigid and immovable, became flaccid and freely movable; the abdominal muscles became less tense, and the arching of the spine disappeared; the pupils were also contracted and the pulse sank to eighty-two beats; the effects lasted between two and three hours, when all the symptoms (of the disease) returned;" beef tea and brandy given by enema every four hours. Fourth day, subcutaneous injections, which have been given regularly every three hours, have been followed by an almost complete remission of the symptoms, lasting for two hours; in the evening, the dose was increased to one-third grain. Fifth day, dose of injection increased to three-quarters of a grain every two hours, or as soon as the effects have passed away. Sixth day—the injections occasioned pain and inflammation in the cellular tissue and were found to be acid; a few drops of liquor potassæ were added, with the effect of producing less pain. Seventh day—patient was very delirious, evidently from an overdose of the medicine, and it was suspended for seven hours, at the expiration of which the muscles were as rigid as ever; injections to be continued as before; the effect of the medicine passes away more quickly now than before. Eighth day—dose to be increased to one grain every two hours. Ninth day—one-third grain of morphine given subcutaneously. Twelfth day—patient much improved; discontinue injections and substitute suppositories containing 1¼ gr. of the extract every two hours, with morphia at night. Patient continued to improve until the 29th day, when convalescence was established. Case under charge of Mr. Ashdown, and reported in Braithwaite's Journal, part 58.

Case 5. I am indebted to Drs. Hewett and MacGregor, of this city, for their kindness and courtesy in permitting me to visit this case, which was under their charge; the following account is compiled from an excellent report made by Dr. MacGregor, (and intended, I believe, for publication,) and my own observation.

A negro, thirty-eight years of age, received a wound in his foot by stepping on a rusty nail; two weeks after which tetanic symptoms first appeared; the disease, however, was not recognized until the third day, when he was obliged to go to bed; a small piece of leather was this day discharged from the wound; he was given five grains quinine and one-quarter grain extract belladonna every three hours. Fourth day—no improvement; thirty grains bromide potassium every three hours substituted for the quinine and belladonna. Seventh day—disease increasing in violence; chloroform administered by inhalation, and in the evening one-quarter grain doses of extract calabar bean given every two hours; four doses of this were given without any appreciable result, and the dose was increased to one-half grain every two hours, with marked improvement; beef essence and milk punch also to be given every two hours. Eighth day—decidedly under the influence of the bean with contracted pupils and almost entire remission of spasm in all the muscles except the back and abdomen; pulse 78; temperature 84¼; expectorates freely mucus, tinged with blood; at evening visit, dose of the extract diminished to one-quarter grain, but about seven hours afterward, the symptoms returning, the dose was raised to one-half grain as before. Ninth day—about the same; pupils very much contracted; pulse 72; temperature 99½; the interval between the doses to be increased to three hours. At the night visit, found the patient laboring under evidently an overdose of the bean; he was "semi-comatose, pupils contracted to a pin-point; perspiring profusely; pulse 72, weak and very irregular; respiration 18; every muscle, except those of the abdomen, completely relaxed and mouth wide open." Stimulants were freely given and the intervals of administering the medicine were increased. Tenth day—still improving; pulse 76; respiration 18; temperature 98.8; can lie on either side for the first time since attacked. Eleventh day—at this time the extract gave out, and, as none could be obtained in the city, the tincture, made after Dr. Frazer's formula, in seven minim doses every two hours was substituted. Great difficulty has all along been experienced to secure the proper administration of nourishment and stimulants to this patient; his wife, who waits upon him, like negroes generally, follows her own idea about food, instead of the doctor's directions, and notwithstanding the positive and emphatic orders of all the medical gentlemen in attendance on the case, there was every reason to believe that the quantity of nourishment given was far below that ordered and required. Twelfth day—patient worse; pulse, respirations and temperature increasing; pupils dilating and symptoms of the disease returning; the dose of the tincture was increased to fifteen minims, but without effect; in the morning the patient had a severe paroxysm and chloroform was again used and the dose of the tincture increased to xxv minims. At the evening visit, the patient was very much worse, he had nine or ten paroxysms since morning, is now unable to swallow, and is exceedingly prostrated; ordered concentrated beef essence with quinine and whisky by enema. Thirteenth day—still much worse; total inability to swallow; has been kept under the influence of chloroform; pulse 125, resp. 36, temp. 101½. About noon of this day a fresh supply of the extract was received by mail from Cincinnati, and three-fourths of a grain was at once injected hypodermically with the effect, in six minutes, of contracting the pupils and in ten minutes relaxing the muscles sufficiently to allow him to swallow with comparative ease; three-quarters of an hour later another injection, similar to the first, was given and followed in the same time by further relaxation of the muscular system and a reduction of the pulse to 93; ordered one-half grain extract every hour to be given by the mouth. Fourteenth day—still very weak; pulse 128; respiration 38; the subcutaneous injection had to be resorted to during the night with some relief; complains of intense pain at the end of the sternum; chloroform still kept up and enemata of beef essence and quinine every four hours, but all without avail; the patient sank rapidly and at 10½ P. M. expired.

Case 6 was under the charge of (I believe) Dr. Benson, of this city, who has been unable to furnish me with its details. I understand it to have been a case of traumatic tetanus, in which the tincture of the bean was used, but without success, the case terminating fatally. I have included it in my summary, because Dr. Benson stated to me that the disease was tetanus, and that, so far as they had been able to obtain the calabar bean, a faithful trial had been made of its virtues.

Case 7. A man while engaged in firing a salute, July 4, 1867, had the right forearm "terribly mangled" by the premature discharge of the piece; the muscles being much lacerated and the ends of some of the fingers blown off; splinters of wood were also imbedded in the arm. Water dressings were applied.

On the eleventh day after receiving the injury tetanic symptoms were developed, and one-half grain morphine every two or three hours was given, which dose by night was increased to one grain every two hours, and forty drops of Magendie's solution (of morphia) injected subcutaneously.

Second day of disease: no improvement; morphia does not produce any effect; ordered gelsemen, grains two, every two hours; all the wine and nourishment he could take. At night patient much prostrated from the effects of the gelsemen; spasms violent; ordered extract cannabis indica, grains two, every two honrs, and "grains one and one-half morphia acetat, as required to blunt the sensibility to the pain of the spasms. Threw forty drops of Magendie's solution into the arm."

Third day: Patient worse, and amputation of the arm near the shoulder was submitted to; "the operation partially relieved the spasms; however, the disease was making headway when calabar bean was suggested as worthy of trial. It was brought into requisition, but for some two days seemed to produce no decided effect."

Fifth day: Patient much worse; ordered fifteen drops of the extract calabar bean every two hours, "with morphine powders of a grain each to be given in quantities sufficient to produce sleep." The reporter of the case, Dr. P. Curran, remained with the patient all night, giving him morphia "from time to time," and by morning, or in nine hours, had administered an equivalent of ʒi of solid opium, and about a drachm of the extract of calabar bean, with the effect of producing sleep, relieving the trismus, and rendering the muscles of the neck more pliable.

Sixth day: No morphia was given, but the calabar bean was continued.

Seventh day: In the morning, symptoms of the disease were returning, and morphia in one and one-half grain doses was given, with the diminution of an hour in the intervals of administering the calabar bean, until in the course of four and a half hours the patient had taken an equivalent of forty-two grains of opium, and about a drachm of the extract of calabar bean, with the effect of relieving the tetanic symptoms.

Ninth day: During the preceding night the patient was somewhat worse, and this day the morphine was given largely; in four and a half hours an equivalent of fifty-four grains of opium; the calabar bean had been continuously exhibited in fifteen drop doses of the extract every hour and a half. "At 12:50 o'clock pain ceased; at 1:15

the patient went to sleep. Thenceforward he improved steadily until 6 o'clock A. M., when I left. He was under the care of Dr. Baxter from that time forward, and has perfectly recovered."

Case reported by Dr. P. Curran in the Chicago Medical Journal, June 15, 1868.

We thus have a total of nineteen cases of tetanus treated with the calabar bean, (including the one in which only one dose of the bean was given by Dr. Watson,) twelve of which recovered and seven died. Of the seven additional cases which I have collected, case 2 should, I think, be excluded in forming any statistical estimate of the value of this remedy, as the post-mortem examination revealed the presence of a hair-pin in the scalp, a source of irritation which the most sanguine could scarcely expect to remove by medicine. If this be excluded, as well as Dr. Watson's case No. 8, we have a resultant of seventeen cases treated, with only five deaths.

I have been unable to find in any of the journals examined, in the course of the preparation of this paper, such statistical results concerning the use of other remedies, and am inclined to believe in the correctness of the records concerning this one from the fact that after a correspondence with Profs. Gross, of Philadelphia, Donaldson, of Baltimore, and Dr. Foster, of Cincinnati, I cannot find any additional cases in which the agent has been used that have not been reported; indeed, my replies from these gentlemen, except Prof. Gross, were altogether negative; they had not used the agent themselves nor had they heard of its use among their acquaintances. Prof. Gross mentions its use, along with other remedies, for nearly a week, in the case of a young gentleman under the care of a professional friend, but he states, "I cannot say that it produced any appreciable effect."

I had not time to write to him again for the purpose of ascertaining the preparation used, but from his remark, think that it was the tincture, which, as prepared in this country, is, I believe, almost inert.

In analyzing these recorded cases, one cannot but be struck with the power exercised by this agent in controling spasm and relaxing muscles. As soon as a sufficient quantity has been absorbed to produce its constitutional effects, as manifested in contraction of the pupil, almost complete relaxation of nearly all the muscles lately in a state of tonic spasm occurs; the patient before in a condition of opisthotonos, with jaws firmly set, œsophagus closed, an imaginary whip corp about his chest and slowly passing through that horrible torture of squeezing to death, becomes relaxed; his limbs become flaccid, his mouth opens, food can be swallowed, the whip-cord is loosed, and he feels himself temporarily, at least, released from the embrace of his adversary.

The objects we have in view in treating a case of tetanus are to relieve the constant contraction and occasional spasm of the voluntary muscles, to provide nourishment in sufficient quantity and quality to support the system until the disease, whatever it is, passes away, and to relieve pain. If we can accomplish these objects, I believe we will overcome the disease. Mr. Erichsen states, "it is necessary to bear in mind that tetanus is a disease of debility, the violence of the spasmodic paroxysm giving an appearance of false strength to the patient, and that the principal source of danger and death is from fatigue induced by the energy of the muscular movements and the consequent want of rest." The case treated by Mr. Ashdown is, I think, exceedingly interesting, as showing the prompt effect of the remedy when properly administered and the great necessity for an unsparing use of nourishment; although the treatment was commenced on the first day of the attack, the dose was not sufficiently large to affect the system, but upon the injection hypodermically of one-third grain of the extract, we find a decided amelioration of all the symptoms in five minutes. In Dr. Hewett's case, I was very much impressed with the promptness by which the spasm was relieved and the muscular system relaxed both by the internal and hypodermic use of the medicine, and could not but admit to my mind the reflection, that, had we been able to procure a supply of the extract, the life of the patient might have been at least prolonged. The poisonous action of the bean was well shown in this case; the same weakness and fluttering of the pulse, prostration, perspiration and contraction of the pupil, as was felt by Dr. Christison, appeared in this man. In cases 5 and 1, the peculiar pain at the pit of the stomach was complained of; catharsis, and in case 1, emesis occured and bloody sputa was expectorated.

I have demonstrated the paralyzing effect of calabar bean by injecting it under the skin of rats and also under the skin of my horse, who dying of uræmia, was fearfully convulsed; an injection of three grains of the extract checked these convulsions in a very short time and held them in check until his death.

The bean may be used in the form of powder, tincture, or alcoholic extract. Dr. Frazer's formula for making the tincture is as follows: ℥i of the kernel in fine powder; ℥iii of rectified spirits are used; place the kernel and ℥i of the spirit in a carefully covered vessel and allow them to remain for twenty-four hours; pack in a percolator, pour in what spirit may be left in the vessel and afterwards pour as much spirit through as may be required to obtain ℥ii of the tincture; fifteen minims represent, three grains of the bean. However valuable this preparation may be, as made in Scotland, that made in this city certainly does not answer the purposes claimed for it; used by Drs. Hewett, Benson and Larrabee it was found to be almost inert. I analyzed a specimen of the tincture used by Drs. Hewett and Larrabee, and in ℨvi found only three-quarters of a grain of the extract, and an injection of forty drops under the skin of a rat had no appreciable effect. The alcoholic extract is, without doubt, the best preparation for use either by the mouth or under the skin; it is apt, however, to be acid in its reaction and prove irritant; this may be avoided by neutralizing with an alkali. The commencing dose by the mouth should be from three-quarters of a grain to one grain every two hours, or under the skin, one-quarter to one-third of a grain, and increased as the effect passes off or the urgency of the symptoms demands. The powdered kernel was used in three grain doses by Dr. Larrabee and with reasonably good effect.

I must again quote from the valuable paper of Dr. Frazer with reference to the administration of this agent. He says: "It may be administered by the mouth, anus or subcutaneously, and the especial peculiarities of each case will be the best guide in determining which of these shall be used. I should myself feel inclined always to commence the treatment by subcutaneous injection, to repeat such injections until the system is decidedly affected, and then to administer the remedy by the mouth in a dose three times as large as is found necessary by subcutaneous injecton. Such a plan might be safely followed in a child nine years of age. If the remedial effects continue to be produced by administration by the the mouth, it should be persevered with. In the more severe cases, however, I believe subcutaneous injection should be alone employed. The distress and increase of spasm caused by swallowing, or the impossibility of introducing substances by the mouth, will render this necessary. I cannot also urge too strongly that subcutaneous injections should always be used when severe and continued spasms occur; when a fatal result is imminent from the exhaustion caused by prolonged and frequent convulsions, and when apnea threatens at once to close the tragic scene. By it we obtain the quickest and most powerful results."

I do not wish to be understood as advocating the use of the calabar bean as a *cure* for tetanus, but I think that, so far as it has been tried, better results appear than are exhibited in favor of any other of the numerous drugs which have been used in this disease. It is true that many unsuccessful cases may have occurred, of which we are in ignorance, it being, unfortunately, the tendency of the profession to bury with their patients the records of such cases; but in attempting to arrive at the virtues of any article of the materia medica we are forced to receive, as the basis of our investigation, such published cases as we can obtain, and after that to make up our opinions from personal observation. I believe that the calabar bean is entitled to a further and fair trial, and most earnestly trust that it may realize the high hopes anticipated for it.

I cannot close this paper without inviting the attention of the Fellows to the somewhat singular fact, that within the past few weeks, there has occurred in this city six cases of traumatic tetanus, suggesting the reflection that there may be some atmospheric influence effecting the nervous system and in cases of wounds having a tendency to develop this disease.

ART. II.—A VIOLENT CASE OF SPORADIC CHOLERA—DEATH IN ABOUT EIGHTEEN HOURS, NOTWITHSTANDING HEROIC TREATMENT. By PAUL F. EVE, M.D., Professor of Surgery in the Medical Department, Cumberland University.

During the absence of my friend, Dr. Atchison, I was called to see an urgent case of *cholera morbus*, which was fortunately relieved by mustard to the epigastrium and a few doses of a mixture of tincture of camphor, opium, capsicum and ginger. The patient had had an attack of epidemic cholera when it prevailed here in 1866; and not leading a very prudent life, and, residing in a very low damp situation in a one-story house close upon the earth, is not unfrequently troubled with diarrhœa. When seen on the 20th of September, he was laboring under almost incessant vomiting and purging of rice-water discharges, with cramps, exhausting sweats and great prostration. In 1866, he was rescued from the stage of collapse. It would be desirable, if possible, to define the differences between cholera morbus and epidemic cholera, or sporadic and Asiatic cholera. The case above referred to, and the one now to be described, would, I think, have been reported as genuine cholera, had they occured during a prevailing epidemic of that disease.

January 29th, 1845, was called to Mr. C., æt. about forty-five; of leuco-phlegmatic temperament, with the sanguine engrafted upon it by free and generous living. The day before, he had dined out on turtle soup, ice cream, soft peaches, champagne, etc., and returned home to the sand hills, near Augusta, Ga., at 1 o'clock A.M., the 29th. The patient had been in the habit of using every morning a bottle of Saratoga water, which would secure two or three watery evacuations each day. He mentioned, moreover, that he had had some symptoms of diarrhœa for a week or ten days. Feeling quite uneasy on his return home that night, he drank some brandy and water, and soon after lying down was so violently attacked with vomiting and purging that at 8 A.M. he fainted while at stool. My friend, Dr. Hitchcock, of the U. S. A., then at the arsenal hard by, saw him at 10 o'clock and, finding him greatly prostrated, immediately applied active revulsives to the patient's extremities and surface;

gave forty drops of laudanum, a pill of one grain of opium and five of calomel, with tincture of capsicum and and hot brandy toddy. I arrived at 12½ P.M., when the pulse was scarcely perceptible, the entire surface cool, of a bluish color and covered with clammy perspiration. In addition to the above active means, aqua ammonia to vesication over the abdomen and temporary ligatures to the extremities were tried. My cousin, Prof. Joseph A. Eve arrived at 2 and Prof. Ford at 5 P.M. Patient complained of no pain, but of great weariness, distress and oppression. He was now bled to eight or ten ounces, apparently with some slight amelioration of these symptoms. There had been no vomiting or purging since 8 o'clock in the morning, and the pulse varying from 120 to 160. During the evening, fire by alcohol was tried over the adbomen, which only aroused him for a few moments.

At 2 A.M., the 30th, Mr. C. was informed that no hopes were entertained of his recovery. A quart of hot brandy toddy was given him in three-quarters of an hour, without apparent effect. His death occurred about 4 A.M.

The following are the remedies used in this case from 10 A.M., June 29th, to 4 A.M., the 30th, a space of eighteen hours:

Internal.—Opium, about 3 grains; calomel, 35 grains; laudanum, 120 drops; morphine, one-half grain; aqua ammonia, 60 drops; quinine, 9 grains; capsicum, about 60 drops; brandy, about 2 pints; spirits turpentine, 60 drops; chloric ether, ℥iii; carb. ammoniæ, about 40 grs.

External—Spirits turpentine, aqua ammonia, mustard, pepper, Granville's lotion, alcohol in flame, ice, ice water, and the patient was bled about ℥x.

ART. III.—A CASE OF ANTHRAX AND THE PECULIARITY OF ITS ATTENDANT SYMPTOMS. By DR. S. C. THORNTON, Moorestown, N. J.

As diseases are often interesting to the physician because of their singularity and complications, and when their symptoms are grave and threatening, their successful treatment more or less important, so the history and treatment of this case may be sufficiently interesting and important to justify its publication.

November 15, 1868, I visited professionally to-day, H. V., a farmer; age, fifty-two years; hight, sixty-two inches; weight, ten stones. Since 1856, when I attended him for fractured femur, he has had no sickness; he is "temperate in all things," active and industrious. On the 8th, a small pimple prevented him from buttoning his shirt-collar. To-day the pimple's former site is occupied by a large anthrax, right side of the neck, extending from the hair of the scalp three and a half inches downward, circular, the cuticular covering of which is thin and perforated by numerous foramina and discharging laudable pus. The top was freely scarified and touched with potassa to assist in the separation of the dead cellular tissue and to destroy the peculiar pain. Prescribed a poultice of lini farina; Cook's pills; after their operation morph. sulp. gr. oss. every four or six hours, until sleep was produced. Nothing in the general symptoms worthy of notice was observed.

16th and 17th. Nothing unusual.

18th, 6 A.M. Family thought he was sinking. Profuse perspiration, oppression of the chest, palpitation of the heart, difficulty of breathing were the difficulties with which he had to contend, all of which I imagined might have originated in incubus, of which, however, he had no recollection. Prescribed pil. hyd. gr. ij. and whisky f. ℥j. every two hours; morphia to be continued, if required; it has made him sleep well at night.

19th. Dyspnœ gone and diaphoresis not so profuse. Slips down in the bed. Prescribed the same doses of whisky and mercury every three hours; he is not to be awakened for them.

20th. Irritability of mind, twitching of the facial muscles, restlessness of body; pulse hard, full and 108. There is diaphoresis still; omitted whisky. Prescribed inf. valerian and solution of quinia, gr. ij. to f. ʒf., also pil. hyd. gr. ij. The first to be frequently taken, the two last every four hours.

21st, 2 A.M. Family thought he was "dying because his jaws are set." Rigid contraction of the masseter and temporal muscles, chronic in their character, I presume. Expression of the eyes wild and staring; pupils dilated; diaphoresis profuse. From the inarticulate answers given, we thought he recognized those present. He lay on his right side, and, if I may be allowed the expression, in emprosthotonos. The spasm of the jaws originated in an attempt to drink. Chloroform was inhaled, the muscles completely relaxed and he slept well till 4 A.M. During the time he was under the influence of the chloroform, a strong injection of assafœtida was administered, which emptied the lower part of the colon freely. When he awoke he was maniacal and violently resisted the efforts of three strong men to keep him in the bed. Chloroform was administered again; by force he was compelled to inhale it; to its influence he was quite susceptible and was soon asleep. He slept till 6 A.M., and awoke again a maniac. I wished his wife to try moral suasion. This she did, and by constant watching, she succeeded in keeping him tolerably quiet until 8 A.M. Directed that no more medicines should be given of the kinds he had been taking. There was no ptyalism perceptible. Prescribed soup for his food. If trismus or mania returned, I directed his male nurse to keep him under the influence of chloroform. In the evening, I found that every attempt to swallow the soup had brought on trismus, and consequently the anæsthetic had been frequently and freely used to relieve it and the raving.

22d, 2 A.M. Constant subsultus; frequent returns of the trismus, always with an attempt to swallow; profuse diaphoresis; slipping down in the bed; pulse full, hard and of normal frequency; anthrax discharging very freely and granulating well. A blister of ceratum cantharides, was applied over the whole length of the spine, two inches in width.

The carbuncle was dressed with raw cotton, well soaked with tinct. opii. Morphia, gr. ss., every two hours. If he could not swallow it, tinct. opii. f℥j to be thrown into the rectum as often. At 9 P.M., the blistering cerate was removed and had drawn well, the subsultus had disappeared and the morphia held him "firmly bound." Chloroform had been frequently given during the day for the trismus and mental derangement.

23d and 24th. Gradually improving. On the latter day trismus existed for the last time. December 6th, visits discontinued.

During four days he used in inhalation three pounds of chloroform, a good article that I procured from the manucfaturers, Powers & Weightman. He swallowed, in the course of his sickness, eight grains of morphia and one ounce of pure laudanum was given in enemata.

In a case reported by my father, (of traumatic tetanus, that he successfully treated, and which was caused by the wearing a tight boot,) in the Medical Reporter, for 1849. Venesection was practiced and ptyalism produced, but he afterwards trusted entirely to ether and chloroform to induce the cure.

In the three cases I reported to the Medical and Surgical Reporter, that of a lad who fell from a tree on the palms of his hands and thereby forced both bones of both the forearms in the earth; that of the young man, in whom tetanus originated from a wound in the hand; and that of a farmer in whom idiopathic tetanus was induced by sleeping in the open night air, no chloroform or ether was used. The first of these three cases was, of course, a hopeless one. The second was one of tonic and general muscular rigidity, and recovered. The third very much resembled Vanvane's case. In both the diaphoresis was profuse, and in both trismus was induced by drinking. Vanvane had emprosthotonos; the other, (Burr) opisthotonos, and died in one of the spasms; and in the treatment of this case, Burr's, I now regret that he was not thoroughly anæsthetized by chloroform during the spasms.

Vanvane's was certainly a desperate case; the attending symptoms, tetanic and cerebral, were different from those I ever saw accompany antharax. A few weeks after his commencing convalescence, I have been informed, a similar case happened, under the same constitutional relations, in Marlton, a village six miles from this place. Both men were of the same hight and alike in their general habits of life. The Marlton man was much the heavier; he had trismus and raving; difficulty of deglutition and profuse diaphoresis. No chloroform was administered to him, and he died. That chloroform would have saved him, I am not certain, but would not feel myself justified in treating a similar case without it. That Vanvane had spasmodic action of muscles of the jaws is undeniable; and they were so firmly closed, that with my hands unaided, I was unable to make the slightest separation. In the etiology and pathology of tetanus, I am cognizant of nothing that forbids me to consider this spasmodic action tetanic.

ART. IV.—CASE OF DISLOCATION OF THUMB, BACKWARDS—REDUCTION UNDER ETHER AND DR. LEVIS' INSTRUMENT.

By T. CHALMERS DOW, M.D., Nashville, Tenn.

On the evening of July 27th, my preceptor, Prof. Paul F. Eve, was called to the case of an Irish woman, æt. about 37, who, in falling, received the weight of her body upon her right thumb, it coming in contract with the top rail of a chair, thereby dislocating its first phalanx backwards. When seen she was suffering greatly. There was no tension about the parts or tumefaction. The thumb could be easily moved, in fact there was free circumduction; the articular surfaces were widely separated, while the end of the phalanx rode backwards prominently over the inferior extremity of the first metacarpal bone. Careful and persistent manipulation failing to effect reduction a resort was had to ether, and that simple, yet admirable instrument contrived by Dr. Levis, of Philadelphia. With this invaluable assistance the difficulty was soon overcome and the reduction effected. The thumb was then secured in place by a splint of stiff binder's board and inflammatory action anticipated by ordinary antiphlogistic measures.

A dislocation of the phalanges is of very infrequent occurrence, and many now gray in the service of the profession may never have met with one; yet this is surprising when we reflect to how many accidents of this kind the human family is daily exposed. In falling we naturally endeavor to protect ourselves by extending the hands. The diagnosis of such injuries is easily ascertained, as these articulations are so very superficial. The contour of the parts are so changed, together with the abolition of the functions of the member, as to render an error almost impos sible.

Dr. Levis instrument will be found delineated in almost all modern surgical works, and consists of a splint about 10 inches long, having four gimlet holes bored near one of its extremities, through which tapes are passed to secure the dislocated thumb upon it, and by this means increase the power of extension.

ECLECTIC DEPARTMENT.

"Carpere et Colligere."

ART. I.—A SKETCH OF A NEW METHOD OF TREATING SURGICAL DISEASES, ESPECIALLY INFLAMMATIONS, WHICH GREATLY SHORTENS THEIR DURATION. By FURNEAUX JORDAN, F.R.C.S., Surgeon to the Queen's Hospital and Professor of Surgery at Queen's College, Birmingham.

The great majority of surgical *diseases* are inflammatory. A glance at the anatomical systems and their diseases will demonstrate this fact. The chief surgical diseases of the body generally are abscess, ulcers, phagedæna, sloughing, gangrene, pyæmia, syphilis. The principal surgical diseases of the skin are carbuncle, boil, erysipelas, cellulitis, ulcers, phagedæna, paronychia; of the bones, periostitis, node, osteitis, abscess, caries, necrosis, sclerosis; of the joints, synovitis and articular osteitis (in all their varieties). The same may be said of the brain and nerves, the vessels, the lymphatics, the eye, the ear, mouth, tongue, tonsil, pharynx, nose, larynx; of the bladder, prostate, urethra, testis, scrotum, rectum, vulva, vagina, and mamma.

It is supposed that the processes of inflammation are as various as its localities, if we judge from the legion of remedies in use. Different parts of the eye, ear, bladder, joints, &c., when inflamed are treated in different ways, and, if it be not satirical to say principles where there are none, on different principles.

There is no evidence to show that inflammation is other than one process, however many its stages, degrees, products, and results. It is probable that, as

Virchow urges, it is confined to a limited number of tissues which enter into the structure of every organ.

I shall attempt to show that there are a few remedies which are at the same time the most philosophical in principle and the most successful in practice. I shall also attempt to show that *the few* remedies should be used in every stage of every inflammation, inflammation of every organ and every structure.

These remedies may be combined with those very few remedies which are of well-proven utility in specific inflammation, such as mercury in syphilis; but whenever in specific inflammations—inflammations as such becomes the urgent paramount condition—*the* few and best remedies for inflammation must be resorted to. When a specific ulcer becomes a rapidly sloughing ulcer, a broad ring of blister round it (and not too near), will save the threatened part—glans penis, or femoral artery, or a nose —when mercury or other drug is powerless.

What are the true principles on which the treatment should be based? The *secret* which underlies inflammation is unknown, and there is no single remedy which can check or destroy it. But inflammation, like life, can exist only under certain conditions. Some of the conditions which are essential to the existence of inflammation are known. If it be practicable to stop one condition of inflammation, the inflammation itself is stopped. An illustration:—Life exists under several conditions, of which the supply of food is one; but if this one be completely suspended, life ceases. The true principle of the treatment of inflammation is to remove, as completely as can be, the conditions which permit it to exist. One or two can be suspended much more completely than is commonly supposed, and several may be partly so. The result will be in proportion to the efficiency with which this is done.

An absolutely essential condition to the existence of inflammation (and to other active pathological change) is *increased space*. More room is needed when pathological action begins. Keep any given part of the body within its physiological area or precincts, and it cannot be inflamed. Prevent or diminish the increased space, and inflammation is prevented or diminished. In surgical inflammations, to lessen space, is, happily, a principle which can frequently be put into more or less complete practice. Keep any part within the area of health by *pressure*, and it can not inflame. Restore an inflamed part as much as is possible to the area of health, and the inflammation is removed in proportionate degree.

That cell-action—larger, proliferating, multiplied cells —or the presence of exudations, with more blood and more material, should require more space, is as self-evident a truth as another self-evident truth with which we are all familiar, that two bodies can not be in the same place at the same time.

Another essential condition of inflammation is increased quantity of blood, or nutritive "ministering" fluid. No part of the body can inflame if the "health quantity" of blood only be present. Prevent or diminish the increased amount, and the inflammation is in proportion prevented or diminished. The *local* diminution must not be associated (experience and physiology both teach this) with general loss of blood, which means general loss of repairing power. Local diminution can be effected by pressure on the part, and elevated position where practicable; and especially, in every inflammation, by exciting a second inflammation in another—say, the next vascular territory, Small local depletions and pressure upon or occlusion of the feeding artery act on the same principle, but are not of so general utility, although, especially the local depletions, of great service in exceptional cases.

The two conditions just stated are here regarded as essential. There are other conditions; some less essential, some more obscure, but all important. One of these is this: when inflammation prospers, there is no other inflammation present. If a second inflammation, say an abscess, arises, the first shrinks or disappears. In every case this condition may be removed by establishing another and counter-inflammation; but the counter-irritation must be strictly a second, and never an aggravation of the first inflammation—as counter-irritation over the thin parieties of the cranium, or thorax, or abdomen, or knee-joint, or subcutaneous abscess, may readily be, if deeply acting irritants are used.

Another condition. Every inflammation must have a cause. When this is shown, its removal (as a stone from the bladder, a splinter from under the skin, &c.) is an obvious principle of treatment never to be neglected. Unfortunately, in the greater number of inflammations, the cause is unknown, or so little known, or so irremovable, that no principle of treatment can be inferred. Hence the importance of, in all cases, removing those conditions which we do know, and which we can more or less completely remove. Even a stone in the bladder could not cause cystitis if the mucous and submucous tissues could be kept in the area, and with the blood of health. A spark will explode gunpowder, but only under certain conditions—one, the powder must be dry.

Another condition which keeps up and aggravates inflammation is *unrest.* Unrest is as mischievous to an inflamed microscopic tissue element as it is to an inflamed joint or eye. Rest is a remedy which accelerates the subsidence of all inflammations, and should be of universal application in surgical inflammations.

The best remedies, then, are those which remove the conditions, provisions, or stipulations which are required for the existence of inflammation. They are few and select. They are based on physiological and pathological facts as well as on experience. They reduce the duration of inflammations (that is, the vast majority of surgical diseases) to half, a fourth, a sixth, or a tenth of the time occupied by any other known treatment. They are pressure, counter-irritation, elevated position, rest, and where it is practicable, removal of the cause. They are five in number, like the fingers. For several years, no inflammation, whatever its severity, whatever its locality, has come under my care in which I have not asked myself these questions: How can I most thoroughly press upon it? *Where* can I, and how can I best apply counter-irritation? How can I most efficiently rest the part? How can I best elevate the part? Can I remove the cause? I have ceased to ask myself what authorities say, what books say, what teachers say, what friends say? Three of the remedies—removing the cause, elevated position, and rest—are important, and fundamental to all others; but they merely assist nature (a convenient if a vague term), and remove obstacles out of her way. Pressure and counter-irritation are positive remedies; they are added to nature—they do what nature cannot do.

I shall dwell only a few moments on the negative remedies. Their utility in scattered and individual cases is known; but they are not used systematically in every inflammation. Touching elevation, in severe inflammation of every pelvic organ, male or female, and of the hip-joint, I place a pillow under the nates. In inflammation of the limbs, I place the affected limb not merely on a pillow, but as high as possible with a dozen pillows. Seeing that inflammation is simply the sum of the increased inflammation of each tissue element from the unrest of each tissue element, we must admit the need of a systematic enforcement of rest, so well taught by Mr. Hilton.

The active remedies then are pressure and counter-irritation; pressure, according to the efficiency with which it is used, arrests inflammation by removing one of its essential conditions, increased space. It also diminishes the quantity of blood in the inflamed part, and, more than this, secures rest, more or less, to the microscopic elements of tissue. If an erysipelas were just commencing in the lower extremities, it might be instantly suppressed by strapping or bandaging the limb (from toe upwards) to its physiological size. If a carbuncle were just commencing on the back of the trunk, and the patient were to be prone with a heavy shot mattress or bag over the incipient inflammation, the carbuncle could not possibly progress. For several years I have never ordered a poultice without ordering at the same time that it should be thick, heavy, hot, and consistent, so that a bandage might be put firmly round if on a limb, or a shot mattress be placed over it on the trunk. In acute or consecutive orchitis the inflammation cannot pass into the body of the testis, because the tunica albuginea keeps the substance of the testis within its physiological area. Nature provides the pressure beforehand, so that acute inflammation cannot occur in the testis. I have in my note-book numerous cases illustrating the value of pressure; but as I did not use pressure alone, I forbear to cite many. A very large bubo, nine inches in diameter, was treated with a broad circumjacent belt of counter-irritation (by the vigorous use of iodine paint), a thick linseed poultice half-way up the abdomen and half-way down the thigh, over bubo and counter-irritation, and over this a heavy shot mattress. In two days all the pain, tenderness, and almost all the swelling were gone. A central swelling, unquestionably containing pus, at least two ounces, remained; this also, in another five or six days of the same treatment, disappeared. A young woman with large discharging abscess of breast, emaciated and sleepless, declared she was well twenty-four hours after vesication over the brachial artery, a small feather pillow in the axilla, and a thick, very large poultice over the breast, and over this a heavy shot mattress. She spoke the truth in so far that all discomfort and active inflammation had disappeared.

Counter-irritation has this great value: it can be used in *every* inflammation of every organ, whereas there are many inflammations in which pressure cannot be used. Its use is only partial at present, and in certain inflammations, and in certain stages. This is due partly to habit and authority, but much more to the absence of all definite principles which shall determine the precise locality, and extent, and intensity of the counter-irritant. Often enough the so-called *counter*-irritation is really direct irritation. It is probably so with Spanish fly blisters over the thorax and abdomen. Skoda and many others abstain from blistering in pleurisy. The intercostal artery supplies both skin and pleura, and a deeply acting irritant like cantharides may increase the circulation in both. Mr. Simon mentions a case where a blister in peritonitis was afterwards found to have increased the vascularity in the corresponding patch of peritoneum. A cantharides blister over a bubo, or abscess, or carbuncle, or boil, will increase the inflammation, *but a (not too near) zone or arcola or adjacent patch of vesication will remove the inflammation; the completeness and rapidity with which this may be done will depend on the width, and locality, and intensity of the circle or patch of vesication.* If used on a correct principle, counter-irritation may be used with great advantage in every inflammation. The correct principle I believe to be this: *to excite counter-irritation over the next artery or next vascular territory.*

One or two remarks on the action of counter-irritants. They draw the blood from the inflamed part; they probably remove a portion of the sum-total of texural force (as Mr. Simon suggests) from the inflamed to another locality; they also operate probably through the cord in some reflex manner so as to diminish the primary inflammation. Counter-irritants may be roughly classed under two heads—deep and superficial. The deep should be used over the next, or other, or adjacent vascular territory. The more superficial may be used over and around the inflammation, and over twelve, or twenty, or forty times larger a surface than is now usual. In most cases their use may be combined. In chronic inflammation of the knee, synovial or osteal, or both, I cause two-thirds of the thigh and two-thirds of the leg to be vigorously irritated with iodine, the knee itself less than the thigh and leg; pressure, rest, and position are carefully attended to. Any language which correctly described the result would appear bombastic. I have used this treatment in all cases except those which were so advanced when first seen as to require amputation (joint destruction, suppuration, and failure of general health), and in all the success has been marked, rapid, and complete. Cases which some surgeons consider appropriate for resection are, in my wards, all cured by this method. I proceed on the same principles with the ankle, elbow, and wrist. At this moment there are many cases in and attending the Queen's Hospital which any sceptic is welcome to see. In the severer cases of shoulder and hip the actual cautery remains the best counter-irritant (an illustration of the present use of counter-irritation in isolated cases); but it should be used more extensively. I have now two cases in the hospital who entered with severe hip disease. I made a stripe of eschar from near the crest of the ilium, posteriorly to the middle of the thigh, and another over the femoral artery—upper two-thirds of front of thigh. Elevation of pelvis and splintage were added, and both are now perfectly well and have grown stout, and in a fraction of the usual time, in even favorable cases.

The contents of the cranium, thorax, abdomen, and pelvis, cannot be pressed upon when inflamed; if they could, they would be very amenable to treatment, but counter-irritation can be used in all. Irritation at the side of and behind the neck, over the distribution of the external carotid, may be used with great advantage in every intra-cranial inflammation. In thoracic inflammations, especially pleurisy, deep counter-irritation should be used at the inner side of the arm, over the brachial artery, or over a larger portion of the upper extremity. In inflammations of the upper extremity (carbuncle, erysipelas, abscess, ulceration) deep counter-irritation may be used over the thorax, near the axilla, and superficial counter-irritation—iodine or arg. nit.—widely on the extremity itself around and over the inflammation. In the greater number of cases extensive superficial counter-irritation in the limb itself is sufficient. In all acute inflammations of the pelvic organs—bladder, prostate, urethra, vagina, uterus, and rectum—deep counter-irritation (cantharides) should be used over the femoral artery. Superficial counter-irritation may be applied, say in gleet, in a great disc, the centre being the genitals; namely the lower part of the abdomen, the perineum, the inner parts of the thighs, &c. In chronic inflammations, the superficial disc of counter-irritation over a little longer period suffices. In urethritis with more or less stricture a bougie (pressure) must be used in addition. On another occasion I shall cite numerous cases of gonorrhœa, prostatitis, cystitis, vaginitis, and metritis, cured in a marvellously short time by this method. Whatever the duration of the treatment I propose, it is at least much more rapid than any other. Acute or consecutive orchitis can be cured in twenty-four hours by nitrate of silver solution to the scrotum, and a stripe of cantharides or linimentum iodi along the femorals.

In applying a deep counter-irritant to the next vascular region, I have usually adopted the form of a stripe over the artery. This is a matter of detail, the principle being to excite the circulation in an independent vascular territory. The longitudinal stripe over the arteries appears to me to possess certain advantages; it is in a sheltered position, it is near the larger arterial branches, and whatever reflex influence is exerted, it is at least not diminished by placing the counter-irritation over the nerve trunks, which mostly lie with the arteries.

The extent and degree of counter-irritation can be fairly estimated, and there is probably no inflammation of any organ (supposing the organ to be not already structurally spoiled) which cannot be quenched by a counter-irritation sufficiently extended and sufficiently intense. A large mustard-plaster will stop the bronchitis of a cold. A pneumonia, or a pleurisy, or a bronchitis, might require half or the whole trunk, and perhaps the upper extremities, to be vigorously and quickly irritated with iodine; or the thorax, more or less, might be covered with iodine, and a blister put over the corresponding brachial artery. Whatever the stage of inflammation may be, I venture to say, from my experience in treating severe inflammations, that this treatment offers a prospect of success incomparably superior to that of any drug or drugs, at the same time it does not interfere with their use.

In all surgical inflammations, in all stages, the remedies I have referred to should all be applied; the pressure, the counter-irritation, the rest, and elevated position. If it is not practicable to use them in equal, they may be applied in unequal degree—the adjacent counter-irritation more extended, sometimes but rarely, they may be best used in succession. There is, however, no even acute inflammation in which *some* pressure cannot be borne. There is no possible inflammation in which counter-irritation may not be used *somewhere* with benefit. It is no slight advantage that deeper counter-irritation being over the next artery, pressure can be more efficiently applied to the inflamed part; thus an inflamed breast may well be pressed upon, and a blister be placed over the brachial artery with wonderful benefit, as I have often seen. In a case of general hypertrophy of the breast, little progress was being made with pressure; when iodine was applied freely over the brachial, the progress was much more rapid. Where the testis requires to be strapped, counter-irritation may be applied over the femoral.

On another occasion I shall cite numerous cases illustrative of the rapid effects of counter-irritation and pressure. They, and the details of their treatment, will require more space than this, or, I fear, any serial can give me.

The general principles I have advanced find singular confirmation in many popular remedies—a hot, heavy, large poultice supplies admirable, and even pressure and counter-irritation. The belt of nitrate of silver around erysipelas acts simply as a counter-irritant, and the broader it is the more effective the counter-irritation; a blister (as a belt or zone) is still better, and the circle of counter-irritation is equally necessary and strikingly successful around every possible uperficial inflammation.

I cannot speak now of irritating agents. We want better ones. The actual cautery in correct localities (never over thinly covered joints) is of great service in osteal inflammations. Cantharides, iodine, and nitrate of silver are best in other inflammations. Nitrate of silver in strong solution is perhaps too painful for common use. Iodine paint, used at first very frequently, and afterwards as frequently as can be tolerated, is a capital method of setting up and easily controlling extensive areas of irritation. Where pressure is used, and where frequent applications cannot be used, the linimentum iodi is the most convenient agent in the hands of the surgeon.

There are several conditions not distinctly, or not at all inflammatory, in which counter-irritation is of very great service. I can glance only at a few. In every case, now several, of spermatorrhœa, in which I have applied arg. nit. or iodine to the perineum and adjacent portions of thighs, the patients have declared themselves immediately cured. I never apply arg. nit. to the urethra itself. Iodine to the perineum and thighs often gives great comfort in enlarged prostate by warding off or lessening the congestion which so much contributes to retention and difficult micturition. Internal cancers and aneurisms, and external cancers which do not permit of removal, I have so treated with counter-irritation, and in many cases greatly to prolong life.

I have now given a brief sketch of the principles, and a few instances showing their application. At a future time and at greater length I shall describe the surgical diseases (considerably above a hundred) to which the new method is applicable, and the detailed treatment of each case. I shall then ask that the principles be forgotten for the time, and that the treatment of each surgical disease be considered on its own merits, and that the time occupied be contrasted with the time occupied by the methods of treatment now in vogue.

I have said nothing of drugs, because experience leads me to place the remedies I have just advocated on a higher level than any drug; but there are special circumstances which require the use of drugs, and where they are of unquestionable advantage. It is surely a merit in the remedies now set forth that they may be used for the most part by any surgeon in combination with his own favorite modes of treatment.—[*The Practitioner.*

ART. II—ON THE THERAPEUTICAL USE OF MEDICATED PESSARIES. By ALFRED MEADOWS, M.D., Physician to the Hospital for Women, and to the General Lying-in Hospital.

Attention has lately been directed to the subject of the local application of medicines to the vagina in the treatment of affections of the female pelvic organs, and I venture to think that more extended experience will confirm the impression which I entertain as to the value of this mode of therapeutics. Admitting this, however, it must also be conceded that there are objections which may fairly be urged against it; and while I am disposed to urge a more general adoption of the practice, I can but admit that its advantages, so far as I have yet been able to test them, are by no means coextensive with that wider range of therapeutics which we possess, in what is called the internal administration of drugs—I mean by the mouth. My present object, therefore, is, 1. To point out, suggestively, rather than dogmatically, the class of cases in which this mode of treatment may, in my opinion, with advantage be adopted; 2. To describe the best means of accomplishing this object; and 3. To consider critically what objections may be urged against it, and what advantage may be claimed for it. If in what I write much is taken for granted, I must beg to be excused on the score of necessary brevity.

1. As regards the class of cases in which this mode of treatment is applicable. I do not of course include in this category, cases where caustics in their various forms are recommended and used; these have a distinctly local, or rather superficial, object in view and are not therefore of the class of those remedies the use of which I am now advocating, nor are they in any way applicable to the same affections; for the objects which I aim at in the application of drugs locally to the vagina, are precisely those which I also seek to attain by administering the same or similar remedies through the mouth—viz: to reach disease which is deeper than the vaginal surface, and which can only be reached in either case through the medium of the absorbents, the nerves, or the blood-vessels.

Foremost among the cases fitted for this treatment are those in which *pain* is a prominent symptom, and especially those where the pain is not apparently the result of organic lesion. Hence in those painful so-called neuralgic or irritable affections of the ovary, which often occasion great distress and suffering, and where little or no organic mischief is discoverable, more marked and speedy relief can be obtained in this way than by any other and with less unpleasant effects.

So, again, in what is called neuralgia of the uterus, where, without any evidence of inflammation or other organic changes of the cervix, but often with very severe pain and tenderness of that part, greatly aggravated as it is by menstruation or other fuctional activity, the utmost benefit is derivable from the direct application of remedies.

Again, in that extremely painful affection of the vagina, called vaginismus, and in simple hyperæsthesia, I have seen such relief follow from local treatment by drugs, that contact, and even coitus, could be borne with comparative impunity while the effect of the drug lasted; and so on with many other affections of the female pelvic organs characterized by pain, but minus any decided organic change. There is one notable exception to the latter condition in the case of cancer; the pain in this disease is often relieved more speedily by this method than by any other. And even in organic disease, where pain is a troublesome symptom, local remedies of this class are of much service.

But pain is not by any means the only condition we can treat in this way. Diseases, especially those of a chronic character, in which we want to stimulate the absorbents, to promote the removal of effete products, or to obtain the action of some specific drug, may with great advantage be treated locally: mercury, for instance, for its specific action in syphilis; iodine or its compounds for its action on the absorbents; and bromine and its compounds for the double influence, which I believe it exercises, of quieting functional or ovarian excitement, and as a deobstruent.

Once more, there is a class of cases in which atony, both of the vagina and uterus, is the prominent feature. Space will not admit of my detailing the various evils which result from this; but there is one symptom common to them all, which is often very troublesome—viz., profuse discharge, either leucorrhœal, blenorrhagic, or hæmorrhagic. In all of these, astringents—or, as I prefer to call them, tonics, as better defining their therapeutical actions—are of special value, seeing that their action is direct and immediate. Of this class, iron in various forms of astringency, sulphate of zinc or copper, tannin and matico, may be mentioned as the best.

Lastly, in cases where there are offensive discharges, various disinfectants may thus be applied with signal benefit. Carbolic acid or carbolate of lime are those I prefer, but iodine, iodoform, and the permanganate of of potash, are all useful remedies.

2. As to the best mode of application. Two have been suggested. The one, first introduced by Dr. Greenhalgh,

consists of small pledgets of cotton wool containing definite quantities of the various remedies. Three objections may, I think, may be urged against these. First, they are often exceedingly difficult of application, especially in the case of iodine and of astringents, for the vaginal orifice at once resists their introduction by painful spasmodic contraction; thus requiring in many cases the employment of the speculum, which is to my mind a fatal objection. Secondly, the presence of the cotton wool is not unfrequently a source of irritation which cannot be tolerated. I have seen cases in which the vagina was thrown into powerful, but futile spasmodic contraction, for the expulsion of the wool. Thirdly, there is not only the trouble of introduction, but that of withdrawal also, and this latter is sometimes most unpleasant, for not only does the wool become offensive in some cases, but a good deal of muco-purulent discharge collects around and within it.

For these negative, and for other positive reasons, I much prefer the use of pessaries; and I may mention, as a curious fact, that both this and the former method of treatment were in use among the ancients. The medicated pessary, in common use, has for its basis the cocoa butter, and ordinarily weighs about a drachm and a half. I have used these very largely, but the uncertainty of their action led me to question the propriety of using any greasy substance as a vehicle for the drug, recognizing the fact that the vagina will not absorb fat in any shape, and believing it likely that the remedies themselves become coated over with the butter, and are thus, as it were, shielded against the absorptive action of the vaginal wall. This seemed to me to explain their not unfrequent inertness. Moreover, I found many objectors to their use in patients, who resented keenly the uncleanliness and discomfort of a remedy which subjected them to an unpleasant greasy discharge.

Accordingly, I have had made some pessaries in which the basis is the neutral soft soap of the British Pharmacopœia, made into a proper consistence with white wax, or powdered althæa root. I have also reduced the size one-half, or even less, as the others appear to me to be needlessly large; those made with the althæa are very nice when properly prepared; they are agreeable in use, and have a pleasant emollient action, which is very grateful where an anodyne effect is also required. There is, however, one slight objection to this base, viz: that it is apt to become very hard if kept long and exposed to the air. This is avoided if only half-a-dozen are made at a time for present use. The proportion which is found to answer best is three parts of soft soap to one part of the powdered althæa. Where the emollient action is a matter of indifference, the white wax may be used in place of the althæa, in the proportion of three parts of soft soap to one part of white wax. This mass melts gradually, and forms, with the vaginal mucus, a kind of emulsion holding the drug in solution, which is readily absorbed.

With these ingredients I have had much better, more certain and uniform effects than with those made of cocoa butter; I have, therefore, found it necessary to use smaller doses, if I may so call them, of drugs; for instance, with one grain of extract of belladonna I have had more marked effects than with two and even three before. There is, however, one drawback to be noted. In two cases which have come under my notice, the soap appeared to cause some little irritation to the vagina; in one of these the patient was obliged to get up in the night and use cold water freely to allay it. I can only explain this as an idiosyncrasy, just as there are some skins which can never bear soap of any kind. In the case in question, however, I found that the althæa with belladonna was borne very well.

There is one other form of pessary quite recently introduced by Dr. Sansom. It consists of a hollow cone of white wax, containing a watery solution of the ingredient used; the apex of the cone is filled over with cocoa butter, and as this melts much sooner than the wax the liquid flows out, and is then absorbed. I have not yet been able to test these efficiently, but the idea is ingeniously carried out by a chemist at Islington, and may, I conceive, prove successful; the preference which, as yet, I feel disposed to give to those I have employed arises partly from my fear lest the watery solution in these latter forms might escape too quickly for complete absorption, and so the dose becomes untrustworthy.

A few words now as to the remedies which may be used with most benefit. As anodynes I do not think there is anything comparable with the extract of belladonna in about 1 gr. doses, or its alkaloid, atropine, in 1.18 gr. I have long been in the habit of using this, and can indorse all that Dr. Anstie has urged in its favor as a special anodyne to the female pelvic organs. Conium I have also used, and, though it is strongly recommended by French authorities, I have not found any great benefit from it. Henbane is better (5 to 8 grs. of the extract), and morphia (⅓ to ½ gr. of the acetate) are exceedingly valuable. By any of these, used in the way I have suggested, we may easily, if we wish, affect the whole system.

As resolvents, alteratives, deobstruents, or by what other name we may please to call them, iodine, iodide, bromide of potassium, iodide of lead (though I must say that the insolubility of the latter is a great objection to its use, in my judgment,) and the preparations of mercury, may be used, and will be found very efficacious in the chronic congestions and enlargements of the uterus or ovaries and in local syphilitic affections.

I have already alluded to some other remedies, such as astringents, or tonics, and disinfectants, which will be found of great value in cases requiring their use; and though I have not yet used the ergot of rye as a local application, I intend doing so, under the belief that it will prove a good uterine tonic; and as the action required is local, it seems well adapted for local use.

3. In conclusion, I would offer a few considerations for and against the adoption of the method here recommended. To take the latter first, it may be said that suppositories applied to the rectum are better than pessaries to the vagina. I can only reply by a contrary opinion. If we are to have local treatment, I think the more direct it is the better; and I believe the patients themselves would prefer the one to the other as a matter of delicacy; besides, some of the remedies could not be used per rectum. Again, it may be urged that it is undesirable that women should be taught to introduce such things; my answer is, that it is far less objectionable, and much more efficacious, than the old and too common practice of introducing a syringe twice a day, or oftener, for the use of a lotion, which is, and has long been, so empirically recommended. Lastly, it may be urged that this practice is very unpleasant, not to say unclean. My answer is, that the same objection may be made to the introduction of any nauseous, unpalatable, or disagreeable medicines into the stomach.

On the other hand, in favor of the practice I would urge, the advantage of the immediate and direct action of the agents employed to the parts affected; their gradual and continuous effect *pari passu* with the uniform solution of the mass; the avoidance of any stomach derangement which the use of the same remedies might, and not unfrequently does, occasion; the saving of any injurious constitutional effect, which is less likely to happen when the drug is used in this way; and, lastly, the opportunity thus offered of enabling the patient, in many cases, to treat herself, and thus to avoid the attendance by a medical man where local treatment is thought to be really necessary; a point which,I own I regard as one of great importance.

It is quite possible that this mode of therapeutics admits of improvement in the means employed, but this will best be attained, I think, by a more extended trial of those we now possess.—[*The Practitioner.*

Art. III.—On Opium in the Treatment of Insanity.

By Henry Maudsley, M.D.

Although opium has been long and largely used in the treatment of insanity, there is still a great want of exact information as to the cases in which it really does good. No clear discrimination has been made of the varieties of insanity in which its use is sanctioned by experience, nor of the drug which it is best to give when opium is inadmissible. Systematic writers on mental diseases are apt, in their chapters on treatment, to speak of the drug rather than of the disease; they vaguely praise its virtues, and specify the doses in which it should be given; but they do not supply the elements of a definite answer to the questions which press on the practitioner who has to do with a particular case of insanity—whether he shall prescribe drugs, and if so, what drug, and in what doses? This unsatisfactory vagueness is owing mainly to the psychological classification of insanity, by which forms of disease sufficiently distinct to demand a separate description are included in the same class. What profit is there, for example, in reading generally of the treatment of mania by opium, when there are included under this class such distinct varieties of disease as puerperal mania, the mania of general paralysis, syphilitic, epileptic, or hysterical mania, each presenting features and requiring treatment in some degree special? Then, again, much mischief springs from the neglect of the individual constitution or habit of body, as determined by hereditary influence and the conditions of life. There is hardly a disease in which opposite remedies may not be useful under the different circumstances which are denoted by such words as "diathesis" and "idiosyncrasy;" and there can be little doubt that future progress in therapeutics will lie in directing the means of treatment more definitely to the diathesis, and in less random attacks on the particular disease which may have been engrafted upon it. An attack of melancholia occurring in a gouty subject, and, perhaps, taking the place of an attack of gout, is sometimes cured by the treatment proper for gout; and there are cases on record in which acute mental derangement has affected persons living in a malarious district in regular tertian or quartan attacks, and has been cured by quinine. We might, in relation to this matter, profitably apply to the body, corporeal ideas derived from the study of the body, social or political. No statesman with a gleam of philosophy in his mind would dream of using the same measures for the radical cure of rebellion in differently constituted states, simply because it was rebellion; he would have regard to the fundamental causes of the disorder, to the evils in the political system whence it had sprung, and would in each case apply his measures differently, adapting them with special reference to the particular defects of each constitution. On the other hand, a foolish ruler, like an ignorant empiric in medicine, would immediately apply the same measures to rebellion, under whatever conditions it had arisen, because from time immemorial such measures had been thought good for rebellion. So he would do no good, or would do great harm.

It will be vain, however, to look for exact knowledge respecting the medical treatment of insanity until its manifold forms have been systematically subjected to the same exact method of positive inquiry as is applied to other bodily diseases. We must cease to give the mental symptoms the only place in our consideration, and to classify the varieties by them, and must set ourselves to work to study the bodily disorder which in most cases will be found to have caused, or to be associated with, the mental derangement. Why, Dr. Skae boldly asks, should we attempt to group and classify the varieties of insanity by the *mental* symptoms, and not, as we do in other diseases, by the *bodily diseases* of which these mental perversions are but the signs? What we want now is an exact clinical observation of the causes, the symptoms, bodily as well as mental, and the course of the different forms of insanity, and the accumulation of such observations. In this way we may hope to arrive at a natural history of the disease, and to be able ultimately to arrange its manifold varieties in groups or families, having real relations and characteristic features, a knowledge of which will instruct us as to the causation, course, probable termination, and suitable treatment of a particular case which we are able to refer to the group or family. It will then be possible to test the action of drugs with something like precision, and, having made our experiments, to give something like exact information concerning their effects. Meanwhile we are working almost in the dark; and all that the most experienced physician can do is to state generally his empirical conclusions. No wonder then that there is a great want of agreement among men who have no agreement as to the conditions of their inquiries.

These preliminary remarks, while indicating the difficulties of the inquiry, and the direction which our future efforts must take, will serve to prevent an undue value from being attached to opinions given in this paper. They represent the results of personal experience rather than universally accepted rules of practice.

Among the drugs on which we rely in the treatment of insanity, opium undoubtedly occupies the foremost place. And my experience would lead me to say that the most beneficial action of opium is witnessed in the incipient stages of insanity—at that early period of mental depression which so often precedes actual derangement of thought. This is, indeed, the time when judicious treatment will do most, for it will truly sometimes ward off a threatened attack. Unhappily it too often happens that this critical stage is passed through, and a worse stage has supervened, before the physician is applied to; friends make light of it, if they hear of it at all, think it a hypochondriacal fancy, or a little temporary depression, out of which the patient only needs to be rallied or roused, and the sufferer himself, strangely changed and miserable as he feels, is almost ashamed to mention feelings for which there appears so little reason in his bodily state. He is unaccountably depressed, fearfully apprehensive of some undefined evil; cannot sleep soundly, but frequently wakes up frightened, or dreams terrible dreams; can take no interest in, and has no energy for, his usual occupations and amusements; everything appears changed, nothing looking as it used to look. These distressing feelings are worse in the morning, but often pass off towards evening; and the patient may for a time be delighted to feel quite himself again. It is in this stage of depression and vague apprehension, which is truly a fore-feeling of the threatening calamity, that the systematic administration of opium produces the best effect. In some cases a grain of opium every night at bedtime, combined with extr. aloes gr. ij. and tonics, with a moderate allowance of stimulants in the day, almost immediately dispel all troubles. In other cases the use of morphia in ¼ or ½ grain doses three times a day is more suitable, and should be persevered with, notwithstanding an apparent want of success at first, and notwithstanding the ignorant horror which the patient's friends may express on discovering that he is taking morphia regularly.

A more advanced stage of melancholic depression, which may be called actual melancholia, although there is no definite delusion, is that in which the patient is in a permanent state of acute fear and misery. His feeling of external objects and events is strangely and unnaturally changed; impressions which should be agreeable or indifferent are painful, and he is miserable because he believes that he has lost all his natural affections; there is a constant fearful apprehension of something dreadful being about to happen, and whatever he does he fancies to be wrong. He is incapacitated from all healthy exertion, and his mental suffering is so great that he asserts that he cannot bear it, and he dreads that he may do some injury to himself. Paroxysms of acute anguish and despair come on at times, when he hardly knows what he does. Here again is a class of cases in which the systematic use of opium or morphia is most useful. In two cases of this kind in women, in each of which there had been a vague and abortive suicidal attempt, entire recovery was brought about in a short time by the administration of a dose containing aloine gr. j. and morph. gr. ½, every night and morning. Even in those more obstinate and distressing cases, where there is persistent suicidal impulse, and where the patient constantly watches for opportunities and contrives plans for effecting his morbid purpose, I have found opium to be of value, though not so plainly so as in the former cases. In one instance of the kind, after its use had been continued for a long time without any marked effect, the patient got quite well; but whether the recovery was due to the drug, or to an all but successful suicidal attempt, it is impossible to say. Dr. Bucknill relates an interesting case, in which the suicidal propensity was not evinced so long as the patient took opium, but reappeared directly the opium was stopped. If given at all in these cases, it should be given in good and sufficient doses. I should be disposed to begin with at least a grain two or three times a day.

In melancholia caused by, or occurring in immediate connexion with, suppressed menstruation, I have sometimes seen great benefit produced by a combination of aloes, opium and strychnia; but I have never found opium to have any curative effect in that peculiar form of fearful melancholia, which, occurring at the change of life may be described as climacteric melancholia. Neither has experience warranted any sure and certain hope of lasting benefit from its use in acute frenzical melancholia, nor again in chronic melancholia with a settled delusion. In melancholia with stupor, again, where the patient appears like one utterly demented, but where the mind is really absorbed in one great and terrific delusion, opium is useless. In a case of this kind recently under my care, which had lasted two years and a half, and where opium and many other drugs had been tried in vain, I resolved to have recourse to the ancient plan of systematic purgation, especially as there was habitual and extreme constipation. After taking five grains of the extract of aloes every night for a fortnight, the patient, a female, entirely recovered.

As opium agrees better with persons of melancholic than with those of sanguine temperament, so it appears to be on the whole more useful in melancholic than in maniacal forms of insanity. The early writers on insanity condemned the use of opium in mania, because of the exaggeration of the mental symptoms which they observed in some cases after sleep. The observation was true, but the inference was too wide. Unquestionably there are certain cases of acute mania, in which, after two or three hours' of sleep has been procured by a full dose of opium, the patient seems only to have gained new vigor for a fresh start in frenzy, and in which it is impossible to help feeling that the drug has done harm rather than good. But there are, one the other hand, some cases of mania, in which there can be no reasonable doubt of the benefit conferred by opium. These are the cases in which there is no heat or congestion of the head, but where the face is pale, the pulse weak, and where a restless activity and incoherence are accompanied with want of sleep. In puerperal mania, in the mania following on continued intemperance, and in the mania or delirium of nervous exhaustion, such for example as occurs somtimes after acute fevers, the best results are obtained by the administration of opium. The excitement displayed in this form of asthenic mania is hardly less positive evidence of exhaustion, than is the depression of melancholia—it marks, indeed, an irritable weakness; accordingly we sometimes find attacks of it occurring in the course of melancholia, or meet with cases in which there is such a mixture of feeble excitement and actual depression, as to leave us in doubt whether we ought to call the disease mania or melancholia. Whatever it be called, however, the best treatment is to give sufficient nourishing food, a fair allowance of stimulants, and morphia or opium in such doses as may be necessary to allay irritation and to procure sleep.

The cases in which opium seems to do no good, if it does not do actual harm, are those of sthenic mania, in which there is active circulation, where there is a tendency to heat of head, and to congestion of the conjunctiva, and where the patient storms about in a noisy and turbulent manner, is prone to violence, and is sleepless for nights. A full dose of opium either produces no apparent effect, or no other apparent effect than an increase of excitement, or it occasions a heavy sleep for two or three hours, from which the patient wakes more violent and unmanageable than ever. If the use of the drug be persevered with regularly, notwithstanding its want of success, the patient may, after some days of continued excitement and sleeplessness, sink down exhausted and die; the opium, ineffective for good, combining seemingly with the increasing excitement to bring on fatal exhaustion. In such cases, the tincture of digitalis in half-drachm doses, or the tincture of henbane in drachm doses, will be found to be more efficacious in diminishing excitement. If a drachm of the tincture of henbane has no effect, then two drachms, or even more, may be given safely.

When there is evidence of actual organic disease going on in the brain, opium is valueless or mischievous. In the attacks of maniacal fury which occur in the course of general paralysis, its employment appears to increase the congestion of the head, and to favor the supervention of epileptiform convulsions; while digitalis brings down the pulse, lessens excitement, and often procures sleep. Twice I have seen opium fully and fairly tried in acute, restless, violent, destructive, and incoherent mania, where there were some indications of paralysis; in neither did it produce a wink of sleep, or one jot less excitement, and both ended fatally—the one in convulsions, the other from exhaustion. In another case of acute and extremely noisy mania, following a sudden attack of hemiplegia, where there was no question of recovery, but where the patient's shouts alarmed and distressed the neighborhood, tinct. digitalis mxv, with acid hydrocyan. dil. mv. three times a day, produced entire tranquillity.

In hysterical mania, in epileptic mania, and in mania connected with sexual or uterine excitement, I have never seen any good done by the use of opium. In all these forms of mania, though least markedly in epileptic mania, I have, however, seen benefit from the employment of bromide of potassium, with or without tincture of henbane. In one case, that of a widow of sanguine temperament and active habits, who suffered from acute chattering mania, seemingly not unconnected with uterine excitement, recovery took place within a fortnight under the use of bromide of potassium and henbane. Exactly a year afterwards she had an exactly similar attack, when the same treatment was successful in a short time.

In all forms of insanity, it is most necessary to look beyond the mental symptoms, whether these be symptoms of excitement or of depression, to examine closely the physical symptoms coexisting with the mental perversion, and to direct the medical treatment to the nature of the bodily disease which will be often found to be at the root of the whole disorder. Neither opium, nor henbane, nor digitalis, nor any other drug, will act as a specific in any kind of mental derangement; and it is vain to hope, and a folly to attempt, to get rid of the disease by merely stifling its prominent symptom. A rational method of treatment must be based on a careful inquiry into the patient's previous history, and into the origin of his disease, and on a faithful study of all the symptoms, bodily and mental, which it presents.—[*The Practitioner.*

ART. IV.—HOW TO USE THE NITRATE OF SILVER IN ERYSIPELATOUS INFLAMMATION. By JOHN HIGGINBOTTOM, F.R.S., Hon. Fellow of the Royal College of Surgeons of England.

It scarcely appears necessary to give directions for the use of nitrate of silver in erysipelatous inflammation after they had been so plainly stated in my essay on that subject.

It is remarkable that in all the medical and surgical works, manuals, and lectures, &c., I have not seen one correct direction, either of the strength of the solution of the nitrate of silver, or the proper method of applying it, although professedly copied from my work. The careless and incorrect reference to it has greatly misled practitioners in the use of it, and has been quite sufficient to bring the remedy into discredit.

I may venture to say we have no therapeutic agent so safe, powerful, or efficacious as the nitrate of silver, in subduing external inflammation, when properly applied. It has been invariably successful in my hands for nearly the last forty years.

I am desirous of inserting the directions for the use of the nitrate of silver in the Practitioner, as it must become a valuable book for therapeutic reference.

The method of applying the nitrate of silver is as follows: The affected part should be well washed with soap and water, then with water alone, to remove every particle of soap, as the soap would decompose the nitrate of silver; then to be wiped dry with a soft towel. *The concentrated solution of four scruples of the nitrate of silver to four drachms of distilled water is then to be applied two or three times on the inflamed surface and beyond it, on the healthy skin, to the extent of two or three inches.* The solution may be applied with a small piece of clean linen, attached to the end of a short stick; the linen to be renewed at every subsequent application. As the solution of nitrate of silver is colorless, it is necessary to pass a little linen, just moistened, over every part where it has been used, in order to be equally diffused, so that no part be left untouched.

In about twelve hours it will be seen whether the solution has been well applied. If any inflamed part be unaffected, the solution must be immediately reapplied. Sometimes, even after the most decided application of the nitrate of silver, the inflammation may spread; but is then generally much less severe, and is eventually checked by repeated application. It is desirable to visit the patient every twelve hours, until the inflammation is subdued.

By these means we have complete control over the disease.

For the successful application of the nitrate of silver the ordinary brittle stick, either solid or in solution, must be used. Not the "lunar caustic points perfectly tough," nor the crystals and cake used for photographic purposes. —[*The Practitioner.*

ANALYTICAL DEPARTMENT

"Qui e nuce nucleum esse vult, frangit nucem."—PLAUTUS.

ART. I.—ANALYSIS OF VARIOUS ARTICLES. Published in the Medical Times and Gazette, the British Medical Journal, London Lancet and the Practitioner.* (Original copies.) By PROF. JAMES M. HOLLOWAY, M. D., Associate Editor.

Mr. Henry Power, surgeon and lecturer at Westminster Hospital, recommends, after many trials, the *sulphate of soda* for removing opacities of the cornea. The remedy should not be employed until the inflammation which produced the opacity has subsided, and nature has been allowed time to restore the impaired vision unaided.

---

*The Practitioner, a monthly journal of Therapeutics, edited by Francis E. Anstie, M.D., and Henry Lawson, M.D., from which the associate editor has drawn so largely for this month's number of the Journal to complete the Eclectic and Analytica departments, was obtained from the valuable and extensive library of Drs. Lewis and Coleman Rogers, of this city.—[J. M. H.

His usual mode of applying the remedy is to evert the upper eye-lid, and apply the finely powdered sulphate to the inner surface by means of a camel's-hair pencil. Not more than two grains should be used at one time. The application may be made once every day or every other day, or twice a week, according to the amount of reaction following. Redness and a smarting pain follow, but not more severe than other remedies employed for a similar purpose.

Dr. E. Symes Thompson, assistant physician, Hospital for Consumption, Brompton, having prescribed *iron* in its various forms for over 20,000 patients, gives decided preference to the *perchloride*, because it is less apt to disagree with the stomach than the *sulphate*, and is as easily borne as the *nitrate*, *carbonate*, or *citrate*, and is moreover far more efficient in its action. He has found it specially applicable in the debility of phthisis, improving the appetite, regulating the bowels, preventing night sweats, and rendering the stomach more tolerant of cod oil.

The following is the prescription ordinarily used: ℞. Liq. ferri. perchlorid., *m*. v.; spir. æth. chlor. m jjss; aqua ad ℥ii. To be taken every four hours. An infusion of quassia can be substituted for the water.

Mr. Archambault, before the Medical Society of the Paris Hospital, urges the propriety of performing the operation of tracheotomy, as a *dernier resort*, in croup; and proceeds to show, by statistics, that, although delay in the performance of the operation is not advisable, still "it is never too late to practice tracheotomy while there is life."

While the chances in young children are less than in those who are older, still age should not be regarded as a contra-indication. "Robust children of sanguine temperament are less favorable subjects than delicate children with lymphatic temperaments."

[We presume that the author means by the latter sentence to convey the idea that the risk depends mainly upon the difficulties that are to be encountered in the performance of the operation.—H.]

Dr. Horace Dobell, senior physician to the Royal Hospital for diseases of the chest, recommends the following plan of treatment for *post-nasal catarrh*, because of the difficulty experienced by other methods, of reaching the seat of the disease.

Medicated snuff: Camphor, tannic acid, white sugar and high-dried Welsh snuff, of each ʒi.

Medicated lozenge: Camphor grs. ii., guaiacum grs. i., tannic acid gr. ½, hydrochlorate of morphia gr. 1-36, tincture of benzoin m ii., white sugar gr. xix., acacia gum gr. ii.

Take three or four of the lozenges daily, one at bedtime and one on waking in the morning.

The snuff should be used twice daily, morning and evening, and can be best applied with a small elastic tube, "one end of which is charged with the snuff and pushed into the nostril, the other end being put into the mouth and the snuff blown up the nose with a sharp puff."

The snuff should be left off temporarily if a fresh attack of nasal catarrh occurs.

Dr. Lawson regards *pyrosis* or *water-brash* as a "variety of chronic gastric catarrh;" and in this opinion he is sustained by Dr. Handfield Jones, in opposition to the opinion of Dr. Copeland, who considers the affection "especially related to indulgence in particular forms of diet."

He finds the fluid ejected, no matter what may be its composition, always "strongly and decidedly acid."

He has employed, without satisfactory results, bismuth, kino, hydrocianic acid, and the mineral acids. Creasote has been used by Dr. Habershon with seemingly good results, but he (Dr. L.) has, after frequent trials of all the remedies named above, decided that the *sulphurous acid* is the most certain remedy, no matter what may be the true pathology of the affection.

He considers the gastric catarrh due to the irritation of the mucous membrane of the stomach by parasites, and thinks the sulphurous acid acts beneficially, because it is a "*parasiticide.*"

The dose of the acid (B. P.) varies from mxxx. to ʒi., three times daily before meals in distilled water.

Dr. P. W. Jones, of Liverpool, has treated thirteen cases of *pyrosis* successfully with the following prescription: acid carbolic gr. i; spts. of wine ʒi; dose 15 drops in a wine glass of water an hour before each meal.

He, like Drs. Lawson and Handfield Jones, believes the affection to be due to formation of vegetable organisms in the stomach, and the carbolic acid, like the sulphurous, is capable of destroying these.

Prof. Scanzoni, of the Wurtzburg University, differs entirely from Dr. Marion Sims in regard to the pathology of vaginismus; the latter considering the affection dependent upon a "special contractile tendency of the orifice of the vagina." The former regards it as a "contractility induced by inflammation of the parts, which inflammation is caused by the futile copulative efforts of an inexperienced spouse."

Prof. S., therefore, is opposed to the incision of the hymen, and recommends the frequent use of the warm hip-bath, absolute continence, warm lotions of Goulard's extract to the vulva, and laxatives if constipation occurs; after the inflammation has been subdued, the parts should be touched with a solution of nitrate of silver, followed by a vaginal suppository containing belladonna.

After this the vagina should be dilated gradually by the introduction of a conical speculum of white glass, the first two or three applications of which are painful, and some degree of force is required to effect an entrance, but the procedure should be enforced, at the same time the warm baths and suppositories should be continued.

He styles Dr. Sims' method a "bloody operation" which should never be resorted to.

In the Lancet, Dr. Stephen H. Ward urges the propriety of incision in hepatic abscess. The indications are plain when the abscess points between the ribs and adhesion between the parietal and visceral layers of the peritoneum is evident. He goes further, however, in advising the introduction of a fine trochar into the liver substance, when the constitutional symptoms become urgent, even before there is positive evidence that the adhesion has taken place.

In the Practitioner, for August, 1868, appears an analysis of M. Sistach's case of abscess of the liver treated by puncture and iodine injections. Mr. Sistach says, "for ourselves, in spite of the silence of authorities on this point, we believe we are fully justified in laying down the following conclusion: When the hepatic tumor is high and has a reddened cutaneous surface, with superficial fluctuation, so that we are led to suspect adhesion to the thoracic walls, puncture with a hydrocele trochar, and subsequent injections of iodine, may be adopted with great advantage." He prefers the trochar to the bistoury.

[Besides a number of other cases of hepatic abscess, we have seen three cases in which the spontaneous rupture of the sack was made through the diaphragm, and the pus was discharged wholly or in part through the mouth, being *coughed up*. Two of these cases died, and autopsies confirmed the diagnoses made before death.

The third case, occurring in 1859, a negro boy belonging to Mr. John Lipscomb, of Madison county, Miss., aged 17 years, presents a number of points of great interest in the management of cases of abscess of the liver.

Upon the first visit to the case, we learned that he had been suffering for weeks with a pain in the right side, and had been gradually losing flesh and strength, though his appetite was not notably impaired.

Examination revealed a bulging of the intercostal spaces over the region of the liver, and distinct fluctuation. The blackness of the skin prevented the usual indication of redness over abscess.

Being convinced of the presence of pus, caustic potash was applied in the manner recommended by many authors, with a view to causing adhesion between the investment of the liver and the abdominal parieties, in order to prevent the escape of a part of the pus into the abdominal cavity.

Was called to see the boy 36 hours afterwards, and found him expectorating large mouthfuls of pus. The abscess was immediately incised with a curved bistoury, and about four ounces of pus were evacuated. In less than six hours the cough and expectoration ceased, and did not return during the subsequent treatment of the case.

In a few days Lugol's weak solution of iodine was injected without causing pain. Two days afterwards Lugol's strong solution, an ounce, was thrown in and allowed to drain off slowly, without causing severe pain; a few hours afterwards the boy noticed a distinct iodine taste, with some dryness of the mouth.

The iodine solution was used daily for about four weeks, wheh the abscess had so nearly closed as to warrant the discharge of the patient.

The boy recovered perfectly, and twelve months afterwards was healthy and robust.

The most important lesson to be learned from this case is the danger of waiting for adhesion to take place before the puncture by the trochar or bistoury is resorted to.—J. M. H.]

Dr. Monti, of Vienna, has observed that the use of sulphur in the treatment of *itch*, in children, is attended with much inconvenience and irritation where the skin is so delicate.

He recommends, as a substitute, the employment of either of the three following remedies: Peruvian balsam, 40 drops at a time; petroleum pure, olive oil and glycerine, equal parts, or liquid styrax, one ounce; rectified spirits, two drachms; olive oil, one drachm.

The employment of either of these agents should be preceded by a tepid bath and "green soap" or the ordinary "soft soap." One application each day until the cure is complete, which is usually accomplished in from two to ten days.

The eczema, which is oftentimes coincident with this malady, is not materially benefitted by the treatment.

Dr. Furst, of Franzensbad, speaks favorably of "glycerine applied by means of the tampon in uterine affections." He saturates cotton with the glycerine, and introduces it into the vagina in contact with the uterus. By this application hypertrophy of the cervix is reduced rapidly, and irritation and inflammation are subdued.

He agrees with many others that the glycerine acts therapeutically, when applied to a part, by reason of its great affinity for water.

[Surgeon Greenleaf, U. S. A., at present on duty in Louisville, has employed glycerine extensively, with good effects, for the abortion of inflammation in buboes, feruncles, felons and other local inflammations.—J. M. H.]

In the Practitioner, for August, 1868, we find the following paragraph: "At University College Hospital they have adopted the plan of dissolving nitrate of silver in nitrous ether; it can then be spread with a camel's-hair pencil over a surface, and the ether immediately evaporates."

Mr. Paget, at St. Bartholomew's Hospital, regards iodide of potassium very valuable in the treatment of tertiary syphilitic ulcers and periostitis. He, however, thinks that the following mixture should be employed to increase the efficiency of the remedy: potassii iodidi 3 grs.; spir. arom. ammon. half a drachm; water 2 oz. To be taken three times daily.

In cases complicated with scrofula, iron and cod oil should be added to the above treatment.

Dr. Hermann Beigel, physician to the Metropolitan Free Hospital, has made extensive observations upon the treatment of throat diseases by inhalation. When the patient is not too feeble, or when an assistant can be had to make the application, he prefers the atomizer that is worked by compressed air, to the kind worked by steam; mainly from the fact that, with the former, an exact quantity of medicine can be administered, while with the latter this cannot be done because of the admixture of the steam.

With the addition of a long tube of glass or rubber to the ordinary spray producer (known in this country as Richardson's), the remedies can be applied directly to that part of the throat affected, by introducing the long tube into the mouth.

Astringents and caustics are usually employed in the treatment of throat affections. The following mixtures are named: Tannin, 2 to 10 grains; water, one ounce. Sulphate of zinc, 2 to 10 grains; water, one ounce. Perchloride of iron, 5 to 15 minims: water, one ounce. Alum, one to 5 grains; water, one ounce. Nitrate of silver, ½ to 5 grains; water, one ounce.

In irritability of the throat from chronic inflammation, caustic will soothe.

The same may be said of caustic in acute inflammations.

The fœtid breath of so-called ulcerated sore throat is relieved by chloride of lime in an atomized state; and in obstinate cases of ulceration the carbolic acid will correct the fetor.

In croup the advantage of this kind of medication is most striking. The child refuses all other medicines, while it will "look at the atomizer as a kind of toy;" even when this is not the case, the act of screaming is favorable to the entrance of the spray into the air passages.

In the treatment of croup, experience suggests the arrangement of the various remedies in the following order, according to their value: 1st, Lime water; 2d, Tannin; 3d, Bromide of potassium.

Dr. J. Fayrer gives a summary of 67 cases of operation for the radical cure of hernia by a modification of Syme's method, in which the following results were obtained: 46 cases apparently successful; 9 were relieved; 11 failed altogether; and one died from pyemia. These operations were performed from 1862 to 1866.

We quote entire his mode of operating:

A plug of wood, with two ligatures, and a curved needle to pass the ligatures through the abdominal wall; a second small piece of wood to knot the ligatures over, completes the apparatus. The method of performing the operation is simple, but it requires some care and confidence for its effective completion. The fore-finger of the left hand, oiled, is inserted into the inguinal canal, and the scrotum invaginated is pushed before it up to the internal ring with firm and decided pressure. One ligature, strong and well waxed, is then threaded in the needle, the point of which is insinuated along the palmar aspect of the finger on its radial side, until it has reached the extreme apex of the invagination; it is then forced through the abdominal parietes, and appears on a line with the anterior superior spine of the ilium, about 1½ or two inches internal to it. The needle is then unthreaded and withdrawn, to be threaded with the second ligature, and again introduced, this time on the other side of the finger, to be pushed through the abdominal wall as before; this time transfixing a short distance from the point where it first pierced, but emerging through the same opening in the integument.

The needle is again unthreaded and withdrawn. The plug is now pulled into the canal, the apex being tied firmly against the apex of the invagination, and the threads firmly knotted over the small piece of wood. The operation is thus completed.

The plug is left *in situ* for three or four days or more, until pus appears to flow freely from beside the ligatures. These are then cut and the plug withdrawn. The discharge is gently pressed out, a pad and spica bandage are applied, and the patient is kept in bed and cautioned not to strain at stool for some days; as soon as the wounds have cicatrised, a truss may be applied, which should be worn for some months, especially when any exertion is made; it may gradually be left off when the tissues have become firmly consolidated. The time occupied in treatment varies from a month to six weeks in ordinary cases; if there be much suppuration, and the pus burrows among the abdominal muscles, there may be delay, and counter-openings may be necessary, but such cases are the exception. The only one, was that of a native who was attacked with erysipelas and died of pyæmia, the result of cellulitis.

During the period of the insertion of the plug, the bowels generally remain confined, and, indeed, for several days after its removal; should they act, the patient must be warnad against efforts at straining.

Dr. Richard Sweeting proposes a new operation for cancer of the breast, and reports three cases permanently cured in which his method was adopted.

"Instead of removing the breast from the fascia (pectoralis), the proposal is to remove the lower two-thirds of the pectoralis major and all that is above it except a portion of the skin."

His idea is that amorphous cancer cells are to be found in the pectoral fascia, and also in the pectoral muscle; and that by removing these the tendency to reproduction is destroyed. The loss of the lower portion of the muscle does not seriously impair the necessary motion of the arm; especially is this a matter of little concern when the age and sex of those usually operated upon are taken in account.

Mr. T. F. Sanger, surgeon to the Convalescent Hospital, Seaford, reports four cases of ague cured by the administration of a scruple of the hyposulphite of soda three times a day after the usual remrdies had failed, viz: Quinine, beeberine, emetics and arsenic.

He was induced to employ the hyposulphite, by reason of the "fungous theory."

Dr. Murray has under his care, at the Great Northern Hospital, a female in whom the internal half of one eyebrow and the corresponding portion oi the eye-lashes are perfectly white, the result of neuralgia. She is a brunette.

"Three or four years ago, having gone to bed well, she was attacked during the night with a very severe spasmodic tic, which lasted only a few minutes; and in the morning the hair was permanently bleached."

An editorial in the Lancet, March 6, 1869, discloses the remarkable fact that there has been, during the present session of the medical schools of London, a greater scarcity of subjects for dissection than formerly, though heretofore the supply has been meagre.

The anatomy act under which subjects are obtained is only "permissive;" *i. e.*, it does not compel the surrender of the bodies of paupers.

This deficiency in the law, together with the increasing interest manifested by relations of deceased paupers to investigate the causes of death, mainly account for this painful fact.

Dr. Langdon Down has presented to the Pathological Society a case of arrested development, without deformity, illustrative of the evil effects of chronic alcoholism, in parents, upon their offspring.

"He had strong grounds for holding the opinion that these children were procreated during the alcoholic intoxication of one or both progenitors."

The child exhibited was five years old, but "had only the intellectual condition of one of nine months."

Dr. F. E. Wilkinson, of Sydenham, speaks in confident terms of the introduction of a sponge into the uterus, for the arrest of post-partem hæmorrhage.

He has employed this method in several cases in his own practice, and in consultation with other physicians.

He states that "the sponge keeps up a constant regular pressure upon the whole of the internal superficies of the uterus, whilst its spiculæ also stimulate the uterus to contract."

The sponge may be saturated with carbolic acid or perchloride of iron before its introduction, with the object of destroying fetor and acting as an astringent. The sponge is usually expelled in from two to three days.

CLINICAL RECORDS.

"Ex Principiis, nascitur probabilitas: ex factis, vero veritas."

ART. I.—FOREIGN BODY IN THE ŒSOPHAGUS, OBSTRUCTION, ABSCESS, ŒSOPHAGOTOMY, RECOVERY. By DONALD MACLEAN, M.D., L.R.C.S., Edinburgh, Professor of Surgery and Clinical Surgery in the Louisville Medical College.

Cases are regarded as worthy a place in the annals of surgery, sometimes on account of extreme rarity as surgical curiosities, and sometimes on account of lessons of practical value which may be learned from them. In recording the following cases I am influenced by both of these considerations.

On the 18th of February, my colleague, Dr. Goodman, asked me to see E. R., a girl, æt. 23 months, who was supposed to have a piece of bone lodged in the œsophagus.

The history of the case, up to this date, is thus given by Dr. Goodman. On the 10th day of February, Mr. R., the patient's father, called at Dr. Goodman's office, late at night, and stated that the child had, two days before, been eating mutton hash, when she suddenly became "choked till she was black in the face;" that the mother, becoming alarmed and excited, forced the mouth open and passed her finger as far as possible down the throat, where she felt what she supposes to have been a piece of bone similar to one that she had, on a previous occasion, succeeded in extracting, under similar circumstances, from the same child's throat. On the present occasion, however, she failed to seize the piece of bone, but felt it move downwards, beyond the reach of her finger; the child coughed violently for a few minutes and spat up a little blood, and then appeared quite relieved, but refused to swallow anything but fluids, and had gradually become more and more restless and feverish, till the advice of Dr. Goodman was asked. An emetic was prescribed and administered, and early on the 11th, Dr. G. visited the case and found extensive bronchitis, with the usual amount of accompanying general indisposition. He examined the throat as carefully as possible, but could find no evidence of obstruction of any kind and concluded that the child's unwillingness to swallow solid food was caused by want of appetite and not by loss of the *power of deglutition.* The bronchitis gradually subsided under treatment, and in a few days the doctor's attendance seemed no longer necessary.

On the 16th, Dr. Goodman was again called and found well marked roseola, and noticed that there was some diffuse swelling of the neck, in the neighborhood of the thyroid cartilage, on both sides, but chiefly on the left; the patient carried her head on one side, the left, and carefully avoided all motion, especially lateral. There was now, also, total inability to swallow even fluids, although the little patient, evidently suffering very much from thirst, was never tired of making the attempt. Nutritive and stimulant enemata were prescribed, from which considerable benefit was derived.

On the 17th the symptoms continued, and in addition, her breathing became somewhat embarrassed, and on the morning of the 18th, I saw her with Dr. Goodman. By this time the roseola had disappeared, but otherwise her condition was unchanged, except that the swelling of the throat was greater and her breathing more embarrassed than when Dr. G. saw her on the previous evening.

The pulse was too rapid and feeble to be counted, the skin hot and dry, the tongue furred, the face livid and bearing an expression of restless anxiety, the breathing very much oppressed and accompanied by a loud whistling sound, suggestive of œdema glottidis, which, however, did not exist. The swelling of the neck was very difficult to define, owing, partly to its depth and partly to the compression by the larynx and neighboring muscles. Moreover, the child, who was very small of her age, had a remarkably short, thick and fat neck. At this and several subsequent visits paid during the day, the most careful manipulation failed to determine, positively, whether suppuration had actually occurred, or to afford any precise information as to the condition of the deep structures.

On questioning the mother during my first visit, she informed us, that, while endeavoring to swallow one of the doses prescribed by Dr. Goodman for the bronchitis, the child had "coughed up a small splinter of wood."

During the day hot, soothing applications to the surface and inhalations by the atomizer were sedulously employed with the effect of affording a slight degree of temporary relief. Towards evening, however, I was sent for in a great hurry and informed that death, by strangulation, seemed imminent. It was now quite evident that there was but one resource left, viz: operation, and that there was no time to be lost. I proposed to cut right down through the swelling, partly with the hope of discovering and extracting a foreign body, but mainly with the confident expectation that a deep-seated abscess would be evacuated, and immediate relief afforded to the function of respiration.

In this proposal Dr. Henry Miller, also Drs. Satterwhite and Goodman, acquiesced, and I immediately proceeded to carry it into execution, not, I must admit, without feeling deeply that my position was one of more than ordinary responsibility. The age and exhausted condition of the patient, the unsatisfactory history, the indefinite character of the swelling, and the obscurity of the ordinary anatomical landmarks produced thereby, the close proximity of important anatomical structures, injury to which would in any case be disastrous, and in this inevitably and instantaneously fatal, all these circumstances combined to render the operation one of extreme difficulty and danger.

Chloroform having been administered with the utmost caution by Dr. Goodman, I made an incision on the left side along the anterior margin of the sterno-mastoid muscle, extending from the level of the upper border of the thyroid cartilage down to a point opposite the lower border of the cricoids, I cut at once through the skin, platysma and fascia, pressed upwards the omo-hyoid muscle, divided the fibres of the sterno-hyoid and sterno-thyroid muscles; with the forefinger of my left hand pressed the carotid artery outwards as far as possible, and on the point of the same finger guided the knife downwards, inwards, and backwards, to be the projecting wall of the œsophagus, and from which, on the application of the edge of the knife to it, I hoped to witness a discharge of pus; nor was this hope disappointed. The instant the opening was made there was a loud gurgling eructation of gas and an increased flow of blood from the wound, and the next moment all present became painfully sensible of a stench of the most penetrating character, and this was immediately followed by the discharge from the wound of about two tablespoonfuls of dark, grumous, fœtid pus. I then introduced my finger into the wound and right into the interior of the œsophagus, but could not discover a foreign body of any kind; convinced, however, that the main object of the operation had been attained, and that, in case a foreign body was present, a more favorable opportunity of exploring for it would be afforded subsequently, we gladly desisted from further manipulation, and permitted nature to restore consciousness without interference of any kind. No vessels required to be tied. The result was precisely what we had anxiously anticipated; the breathing became quite natural, the whistling sound (produced no doubt by compression of the windpipe) entirely ceased, and when consciousness returned it was found that the function of deglutition was fully restored. The little sufferer was now able to enjoy a copious drink of milk, although with every act of deglutition a small quantity was discharged by the wound.

19th—Morning. Slept very well; wound discharging copiously; drinks freely, but refuses solid food; can't speak above a whisper; bronchitis lighted up again, and is pretty general in both lungs; pulse very rapid, but stronger than yesterday. Ordered beef tea, an expectorant mixture, poultices to neck, and counter-irritation (mustard) to chest. Evening—Breathing suddenly much embarrassed; high fever; countenance livid; pulse extremely small and rapid; discharge from wound almost entirely arrested. On passing a probe into the wound it was found that a valvular closure had been formed, probably by the contraction of the neighboring muscular structures; the introduction of the probe was followed by a gush of healthy pus, and instantaneous relief of the urgent symptoms. A pledget of lint was then inserted to prevent the recurrence of this accident, and was replaced at each dressing for the next few days. After this date everything went on well, the discharge poured away very freely for some days, and then gradually diminished in quantity, and the wound closed up from the bottom, of its own accord, after having been probed in all directions on several occasions, but without result so far as any foreign body is concerned; the bronchitis slowly subsided, the voice returned, and now, March 10, the child is quite well.

Commentary.—On reference to the annals of surgery, it will be found that the cases of œsophagotomy are extremely rare, while those of great distress, and even death from the impaction of foreign bodies in the œsophagus, are comparatively frequent. These facts considered in connection with the brief and indefinite opinions expressed regarding it, and the air of difficulty and even impracticability thrown around the whole subject by many high authorities, induces the conviction that it is one which has not received the attention which its importance entitles it to.

In a recently published monograph, Dr. David W. Cheever, of Boston, details the history of three cases of œsophagotomy in his own practice, and gives a somewhat comprehensive review of the literature of the subject, quoting the opinions and experiences of numerous surgical authorities as Syme, Velpeau, Nelaton, Ferguson, Hevin, Gualtani, Begin, Martini, De Lavacherie, Arnott, Cock, Demarquay and Gross, with the following table of cases, to which is added the one described above. We must, however, confess to a doubt as to the correctness of this table; some of the cases appear hardly entitled to be classed under the head of œsophagotomy. Nevertheless the table is a valuable and interesting one. Of the 22 cases it will be observed that 18 terminated in recovery. Of those in which the age of the patient is given, Dr. Arnott's fatal case is the youngest, (viz: 2½ years), except the one here described. In fact, I think we are justified in assuming that all the patients, except these two, were adults, and there can be no doubt that the difficulty and danger of the operation is in inverse proportion to the size and age of the patient.

Owing to the length to which this paper has already extended, we can only find space for the following brief summary of Dr. Cheever's views:

"In view of all these perils why thould not œsophagotomy be the rule, after reasonable attempts at extraction have failed, just as an operation is the rule in strangulated hernia, after reasonable attempts at taxis have failed?

"We only lose by delay. The experiments of Demarquay have proved that suppuration is imminent if we wait longer than the third or fourth day. "In the whole twenty-two cases we find only four deaths, or less than twenty per cent." And in every one of these, death was due to secondary complications; due either to delay, or to overtreatment in attempts at extraction. In one, there was pneumonia; in two, gangrene; in the remaining one, abscess. No projection externally of the foreign body need be waited for, or expected. As to the manner of the operation, we have given our reasons for the lateral method, which, indeed, is favored by most writers. We need not remind the anatomist, that the nerves are very constant in their distribution, and can all be avoided. And if anomalies of arteries are feared, there is but one of much consequence, and that very rare, namely, the origin of the right subclavian from the arch of the aorta, in which case it crosses behind the œsophagus.

"In comparison with the perils of expectant treatment in surgery, we are almost ready to say, that no dangers from the knife, in an educated hand, can equal those of delay."

In conclusion we have no hesitation in indorsing the practical conclusions to which Dr. Cheever has arrived as the result of actual experience and careful consideration of the subject, and we are of the opinion that these views receive additional strength from the case here recorded.

Table of Cases of Œsophagotomy.

No.	Date	Sex	Nature of Foreign Body.	Point of Impaction.	Treatment before Operation.	Operation, when Performed.	Result.	Cause of Death.	Operator.
1	1738	M	Portion of bone one inch long, six lines broad.	Œsophagus; where, not stated; could be felt outside.	Attempts to push it down.	Not stated.	Recovered.		Goursauld.
2	No date.		Probably a portion of bone.	Not stated.	Not stated.	Not stated.	Recovered.		Roland.
3	1831	M	Portion of beef bone.	Œsophagus; lower part of the neck.	Touched the foreign body; attempts to dislodge it.	Operation twelfth day, left side.	Speedy recovery.		Begin.
4	1832	M	Large conical fragment of bone.	Œsophagus; lower part of the neck.	Touched the body; every means tried to dislodge it.	Operation eighth day —left side.	Recovered.		Begin.
5	1833		Spinous process of dorsal vertebra of a sheep.	Lower part of pharynx.	Emetics and various attempts to dislodge it.	Operation after five weeks, on right side.	Death fifty-six hours after operation.	Pneumonia, existing at time of operation.	Arnott.
6	1842	M	Not stated.	Œsophagus — perforation of; lying on carotid.	Not stated.	Operation eighth day	Recovered.		De Lavacherie
7	1844	M	Portion of bone.	Could be felt outside, projecting above clavicle.	Bleeding, tartar emetics in veins, belladonna enemata, and sixty attempts with instruments.	Operation fourth day —bone swallowed.	Death two days after operation.	Collapse, pharynx gangrenous, stomach inflamed.	Martini.
8	1853	M	Small fish.	Pharynx; tail seen in fauces.	Vain attempts to withdraw through mouth.	Operation after several days.	Recovery in six weeks.		Antoniesz.
9	1853	M	Fragment of beef bone.	Œsophagus; in neck.	Attempts at extraction.	Operation ninth day.	Death second day after operation.	Perforation front and behind. Retro-phar. abscess reach. stom.	Flaubert.
10	1854	F	One franc piece.	Upper part of œsophagus.	Repeated efforts at extraction with Graefe's sound and forceps.	Operation tenth day.	Death the third day after operation.	Retro-œsophageal abscess opening into pleura.	Demarquay.
11	1855		Portion of bone.	Œsophagus; abscess formed.	Could not be reached by fauces.	Operation sixteenth day.	Recovery in two weeks.		Syme.
12	1856	M	Gold tooth-plate containing a false incisor.	Junction of pharynx and œsophagus. No external projection.	Attempts at withdrawal with forceps; emetics.	Operation the fourth day, left side.	Recovery in 4 weeks; permanent alteration of voice		Cock.
13	1861		Thin piece of mutton bone 1 inch square.	Œsophagus; no external projection.	Could not be touched by fauces.	Operation sixth day.	Recovery in two weeks.		Syme.

14	1862		A coin.	Opposite top of sternum.	Coin touched by bougie.	Operation after two months.	Recovery; swallowed in a week.		Syme.
15	1863	M	Bone.	Not stated.	Not stated.	Not stated.	Recovered.		Fourier.
16	1864	T	Peach stone.	Not stated.	Not stated.	Not stated.	Recovered.		Arnold.
17	1866	M	Codfish bone.	Junction of pharynx and œsophagus. No projection.	Vomiting; exploration by finger and probang; rigors.	Operation third day, right side.	Recovered.		Cheever.
18	1866	M	Brass pin.	Below top of sternum. No projection.	Vomiting; long probang.	Operation third day, left side.	Recovery in 5 weeks.		Cheever.
19	1867	M	Tooth-plate.	Opposite left cricoid.	Various explorations.	Operation third day.	Recovered.		Cock.
20	1867	F	Brass pin.	Apparently opposite left cricoid.	Attempts during 4 months.	Operation after four months.	Recovered.		Hitchcock.
21	1868	F	Supposed to be a pin.	Junction of pharynx and œsophagus.	Various attempts.	Operation after eight months.	Recovered.		Cheever.
22	1869	F	Supposed to be piece of mutton bone.	Opposite thyroid cartilage.	None, except one emetic.	On tenth day after accident.	Recovered.		Maclean.

Foreign bodies: Authentic cases, 22; deaths, 4; recoveries, 18.

Note. In cases 20 and 21 no foreign body was found. The lapse of time (four and eight months after the swallowing of the pins) may have favored their escape, or becoming encysted outside the œsophagus. For the severity of the symptoms, the reader is referred to the history of the cases.

ORIGINAL CORRESPONDENCE.

"Sit mihi Fas scribere audita."

PARIS, April, 1869.

On the occasion of an operation for a fistula in ano, having its origin in the serous bursa situated under the ischium, M. Richet, the successor of Nèlaton, at the Hospital des Cliniques, gave us his views on the subject, and at the same time drew an outline of the different kinds of fistules which are developed near the margin of the anus. They contain some practical hints, and a rapid sketch of his ideas may be of interest to your readers.

The patient, the subject of this lecture, is a man aged 32, of good general health, rather fleshy, who received in the month of May, 1865, a contusion upon the ischium, occasioned by a severe fall upon his seat; the region of the right buttock became tumefied, and very soon afterwards an abscess formed near the anus, which opened and continued to suppurate. Unable to continue his work, the man entered the Hotel Dieu, where an incision was practiced, but no cure effected. This happened in the wards of Jobert (de Lamballe) then replaced by H. Houel· Richet having succeeded Jobert, found the patient in about the same condition as when he had entered the hospital. A steel probe introduced into the fistula reached the apex of the ischium. M. Richet made a free incision, so as to be able to apply without difficulty the caustic of zinc to the deeper portion of the fistula. His intention was to modify, in this manner, the bottom of the wound, to destroy the fibrous tissue which covered it, and by means of tents keep the canal open, so that cicatrization might take place from above downwards. But the fistula closed in spite of these measures; it was dilated a second time with laminaria, and another application of the caustic, aided by injections of iodine, had to be made. However, the patient left the hospital some time afterwards, his condition ameliorated, but not cured. This man again applied to Richet for aid, and accordingly entered the hospital in December, 1868, a new opening having formed in the region of the left buttock.

Present state: The right buttock presents a stellated cicatrix, pierced in its centre by an umbilicated opening; the probe, here introduced a distance of 10 centimetres, comes upon the apex of the ischium; no lesion of the bore can be discovered; the finger introduced into the rectum, and pressing upon its walls in the direction of the probe, does not feel the latter because of the mass of tissues intervening. The fistula of the left buttock is nearer the anus; the probe inclines here towards the ischium, and, as upon the opposite side, is not felt by the finger in the rectum; there is no communication with the intestine; moreover, the patient has never passed any blood or pus with his stools, nor has gas ever escaped by the fistulous apertures. The finger introduced into the rectum, and pressing against its walls, produces no discharge from the fistules. The scrotum, the perineum, and the prostate gland examined with care reveal no lesion; the organs of the pelvis are sound.

Is the diagnosis of the affection from which our patient suffers difficult? Assuredly it is, because of the multitude of causes which may give rise to fistules in this region. However, it is well, I believe, before entering upon the elements on which should be based our diagnosis, to throw a rapid glance upon the general history of fistules of the anal region, so as to compare the affinities and the dissemblances which each one of the principal kinds of fistules present among themselves, in order to arrive, by analysis, to the synthesis of the diagnosis as a natural consequence. The region where the fistules of the anus appear is limited in front by the bi-ischiatic line, laterally by the inner margins of the glutei muscles, and still deeper by the sacro-sciatic ligaments. We rarely ever observe fistules opening themselves beyond these limits. The anatomical details of this region are well known; it is closed below by the skin, which is very fine and supple, beneath which there is a large layer of loose cellular tissue, plentifully endowed with fat. This cellular adipose layer extends far into each one of the "*inferior rectal fossæ*" (ischio-rectal) which are filled with it. These spaces are formed on the inside by the levator ani, and on the outside by the rigid walls of the ischium; and it is here where exists the field of evolution for the ordinary fistules of the anus. Still deeper we find the fibro-muscular platform closing the pelvis below, and above this the sub-peritoneal cellular tissue, separated from the peritoneal cavity by the peritoneal fold which, in front of the sacrum, constitutes the meso-rectum. Between the peritoneum and the muscular platform of of the levator ani, there exists a space to which Richet has given the name of "*superior pelvi-rectal fossa,*" in opposition to the one below called inferior rectal fossa. This superior pelvi-rectal space is the seat of a particular kind of fistula, as we shall see presently. These anatomical preliminaries once understood, we will enter into a brief study of the fistules by their classification. There exist four principal kinds, each one susceptible to varieties; they are

1st. The *anal fistula* of authors, or, in order to better specify their character, also called intestine cutaneous. They develope themselves primitively or consecutively in the inferior pelvi-rectal space.

2d. The *superior pelvi-rectal fistula;* they have their origin in the fossa of that name.

3d. The *ossifluent fistula;* they come from the adjoining bones, such as the ischium, the sacrum, or still farther off, from the vertebræ or the sacro or femoro-iliac articulations.

4th. The fistula which follows the suppuration of the serous bursa, situated under the apex of the ischium, the "*sub-ischiatic hygroma.*"

The first, or ano-cutaneous fistules, are the most common; they are generally the result of an inflammation of the subcutaneous or of the cellulo-adipose tissue, which fills the inferior pelvic-rectal fossa; be this inflammation spontaneous or be it the result of repeated contusions, the abscess is formed, opens itself in or outside of the rectum, or both at the same time, and forms the different varieties of fistules known by the name of blind externally, blind internally, or complete fistules. The ordinary symptoms are pain upon defecation, because the abscess which encroaches upon the walls of the rectum, or even projects into its cavity impedes the passage of the fecal matter, which, by pressure, irritates it. These pains cease as soon as the abcess is opened, but suppuration continues ever after, unless an operation is resorted to. The principal canal of these fistules is generally irregular and subdivided into several branches with variable directions. A very important point of the physiological pathology of all anal fistules is the organization of a membrane which lines them and which at the end of a certain length of time is made up of a structure resembling very much the organization of mucous membranes; and everybody knows that the nature of these surfaces is *not* to unite, *not* to adhere, and we can, therefore, easily understand the conditions which oppose themselves to the cure, that is to say, to the obliteration of these fistulous passages, unless their condition is modified. The earlier pathologists, ignorant of this disposition, failed for a long time in their treatment because they contented themselves with a simple incision. It is easy to comprehend why this method of treatment is unsuccessful; the incision alone does not take away the newly formed membrane which lines the whole extent of the fistule. Herein lies the whole secret, and the treatment of the disease only entered the road of progress from the day when the surgeon adopted the *destruction* of the fistulous passage. The means by which to accomplish this destruction of the fistule are numerous, from ablation with the bistoury to the red hot iron. Richet's method is the following: A grooved director is introduced into the fistula and brought out by the anus; an assistant then holds the instrument while the operator seizes with a pair of forceps (rather long and with sharp teeth) the grooved director, (traversing the soft parts with the teeth of the forceps); a bistoury is carried behind the director and with a sweep of the knife the fistulous passage, skin, and all adhering to the groove director is brought away. This proceeding is simple aud rapid and the results are excellent; it assures the ablation of all the diseased parts and leaves a very regular wound easily dressed.

The second kind of fistules (those of the superior pelvirectal fossa vaguely indicated for the first time by Gerdy) have been studied by Richet with a great deal of attention. They are developed by the suppuration of the cellular tissue which fills that fossa, but the etiology of these fistules is enveloped in much obscurity, because, of the seat of the disease, which is no longer accessible to the eye or the touch. The cause of their development often escapes us, but they are rarely ever due to an injury, more often they are consecutive to lesions of the intestines or the prostate gland, of which R. has furnished several observations. In women, they are sometimes caused by an inflammation of the broad ligaments, the cellular tissue of which is in free communication with that of the superior pelvi-rectal fossa. At the beginning of the disease, the patient complains of pain in that region; upon the slightest pressure or movement, this becomes more and more exaggerated, yet we can discover no lesions by the touch; fever is nearly always present and a symptom of considerable value is the excruciating pain which the patient suffers when passing his urine or fæces. This state of things may last from ten to fifteen days, and yet the diagnosis remain uncertain; sometimes, however, the finger introduced high up into the rectum, discovers a deep seated but fluctuating tumor, exceedingly painful to the touch; this abscess becomes more and more apparent and approaches slowly, but gradually towards the superficial parts of the perineum, where at last it shows itself near the margin of the anus. Its descent is necessarily slow, because of the firm resistance which the levator ani offers, for the pus, in order to reach the superficial parts of the perineum must necessarily traverse the fibres of that muscle; the quantity of pus coming from the abscess is quite sonsiderable, and, instead of a spoonful of liquid, as is usually the case with those of the inferior pelvi-rectal space, we have a perfect flow of purulent matter. The probe often finds great difficulty in finding and traversing the opening through the fibres of the levator ani muscle; but this obstacle once overcome, the instrument can be introduced a distance of twelve centimetres into the spacious fossa above. Much precaution must be taken in the handling of the probe, so as not to wound or perforate the peritoneum which separates and prevents the pus from communicating with the peritoneal cavity; it is remarkable that the perforation of the peritoneum never occurs spontaneously, at least R. knows of no such example. The extent of the the fistule, and the large cavity in which it terminates above, easily explains to us the enormous quantity of pus which is discharged; the flow of pus is especially augmented after the patient has been lying on his back for some length of time, and then attempts to sit up suddenly; it is also augmented by pressure from within of the cavity of the rectum. Richet tells us that these fistulas are always straight, parallel and juxtaposed to the rectum; that they *never* communicate with this intestine; that they always form a single passage, and are never subdivided, unless it is in the most superficial portion of their course; their aperture is always very near the anus. They differ from the ordinary fistulas of the anus. Firstly, by the length of their passage, sometimes measuring as much as twelve centimetres. Secondly, by their direction, which is always parallel to the rectum. Thirdly, by the absence of communication with the intestinal cavity. Fourthly, by the abundance of the suppuration. Fifthly, by the uniquity of their passage, which, in the ordinary fistules, especially, if they have persisted for any length of time, is rarely ever the case, because the inferior pelvi-rectal space (ischio-rectal fossa) is double, so that the inflammation can pass from one side to the other, and produce several passages and cutaneous openings. Gerdy who first described those fistules, under the name of *superior*, used to treat them by his method called "*pincement*," but since then the écraseur, the wire ligature, and the enterotome have been introduced for the same purpose. Richet prefers the direct incision, followed by the application of caustic to mortify the bottom of the fistule where the knife can not reach it; but very often all these means fail, because of a lesion of some of the organs of the pelvis to which, of course, we should then direct more especially our attention.

The third kind of fistules, called ossifluent, are, in reality, nothing more than abscesses by congestion, which have opened in the region of the anus; they have their origin in some disease of the pelvis, the sacrum, the lumbar vertebræ, &c. In one instance cited by Richet, the fistule of the anus had its source in a sacro-coxalgie. (And I may add that I have seen a case where the fistule was caused by the suppuration from the coxo-femoral articulation with perforation of the acetabulum.) In all these cases the pus presents the well-known character of osseous suppuration, and, moreover, we have the antecedents and the concomitant lesions to guide us in our diagnosis. One of the most interesting varieties of these kind of fistules is connected with the lesion of the ischium. Richet gave us the history of two of such cases; in both, the disease had been caused by a fall upon the buttocks, which was followed by pain of an intermittent character, formation of abscess at the anus, &c. In one of these cases, a rapid cure was obtained after the elimination of a sequestrum; in both, the disease of the bone was easily discovered by the probe.

The fourth kind of fistules are those which are produced by the inflammation of the sub-ischiatic serous bursa. Namely, there often exist two serous bursæ over the ischium; they are especially remarkable in persons of sedentary habits. The first of these bursæ is superficial, situated immediately under the skin; this one does not concern us us for the moment. The other, deeply placed, covers the apex of the ischium. Now, if from repeated contusions or frictions, such as riding horseback may produce, this bursa inflames an abscess is formed, and which, on account of its situation, nearly always opens near the anus. The walls of the inflamed cavity thicken and harden, their surfaces no longer remain in contact, and we have, as a consequence, an increasing suppuration. The probe arrives here into a spacious cavity; the ischium can be easily felt, covered by a thickened periosteum. In order to cure these fistules we must do more than make an incision; caustics which destroy the surfaces of the passage and the walls of the inflamed serous cavity must be employed, and all the efforts of the surgeon should be directed at keeping the wound open, so that cicatrization may commence at the bottom as in an ordinary wound.

These surgical principals established, we can now diagnosticate with great facility the case which forms the subject of this letter, and, in order to do so, it may be well to proceed by elimination. Evidently it is not an ano-cutaneous fistule, the probe does not incline towards the intestine; moreover, the fistule is a single one, and has been very obstinate to all kind of treatment. It is not a fistula of the superior pelvi-rectal fossa; the character and symptoms traced of them above are absent, and besides, in this case, the probe arrives directly upon the apex of the ischium, which is rough, uneven, and as if covered by cartilage.

The fistula with which our patient is affected has its origin in the serous bursa under the ischium: it has become inflamed. The disease which we have to treat is a *sub-ischiatic hygroma,* and one of which little or nothing is said in our classical works.

The man was operated on; a large incision was made through the fistula, reaching clear to the ischium where the fibro-cartilaginous surfaces of the inflamed bursa were removed, and, to insure their total destruction, sticks of caustic were introduced into the bottom of the wound. Both fistules were treated in this manner, much care was taken in the after-treatment to keep the wound open, and cicatrization began as was desired from the bottom.

A little more than three months after the operation, the man left the hospital quite cured of his infirmity.

Stricture of superior portions of Œsophagus—Internal Bilateral Œsophagotomy—-Gradual dilatation—Cure.—A woman who, by mistake, had swallowed a small quantity of sulphuric acid, entered the St. Antonie Hospital in July, 1868, with an intense inflammation of the mouth, pharynx, œsophagus and stomach, caused by the irritating poison. Three weeks afterwards she was discharged, cured of these symptoms. She reënters the Hospital a month afterwards complaining of great difficulty in swallowing the smallest morsels of food, and even fluids. Catheterism of the œsophagus is impossible; she again quits the hospital but is compelled to return a third time, the pain and difficulty in swallowing having greatly augmented. After four or five unsuccessful attempts at catheterization, the surgeon succeeds in passing the conductor of the smallest size urethrotome, which is increased from day to day until the largest can be introduced, and which is about equal in size to a No. 1 olive of the æsophagus sound. She leaves St. Antoine in December, 1868, and enters the Beaujon Hospital in January, 1869, where I have followed the case with much interest. The tongue, the isthmus of the pharynx, and as far as the eye can see, is covered with bands of cicatricial tissue; the finger far introduced into the pharynx discovers the stricture situated near the cricoid cartilage, about the point of insertion of the inferior constrictor of the pharynx. As the sound passes the stricture, the patient complains of severe pain in the region of the tenth or twelfth dorsal vertebra.

From the day of her entry into the Beaujon Hospital, Prof. Dolbeau's wards, catheterization has been praticed every morning, beginning with olive No. 1. When arrived at No. 4, and finding the cicatricial tissue unwilling to yield any further, M. Dolbeau practiced a bilateral internal incision of the œsophagus at the point of stricture,* following up the operation immediately by the introduction of olive Nos. 5, 6 and 7. To-day, after three months of treatment, No. 9 can be passed, which forms a diameter of seventeen millimetres, which is near the normal size of the œsophagus. The woman has become so much accustomed to this operation that she can sound herself with No. 8. (Only one size less than the one introduced by the surgeon.) Catheterization will have to be kept up yet for some time to come, because of the tendency which all cicatricial tissue manifests to contraction, and which, in this case, is very apparent, for when in the month of February the patient was taken ill, so that the sounding had to be interrupted for a few days, it was found that the stricture had notably augmented, and catheterization had to be commenced with Olive No. 7 instead of No. 9, where it had been left off.

The question as to whether fibrous tumors of the uterus augment during pregnancy, the difficulty which they cause in the way of delivery, their danger for mother or child, &c., has been before the Societè Impériale de Chirurgie for three weeks past. The persons who have taken a special part in the question were M. M. Depaul, Blot, Tarnier, and Guéniot. The discussion ended yesterday, but like many other pathological subjects difficult of solution, this one, too, has come to no positive conclusion. Depaul who had, probably, the best of the argument, concludes as follows:

Fibrous tumors *do* augment during pregnancy, and they generally recede in their growth after delivery. As to the danger for mother and child it is difficult to make any positive assertion, because so much depends upon the seat and the size of the tumor, for these fibrômes of the uterus (hysterôme of Broca) may be situated near the neck, the body or the fundus of the organ; they may be submucous, interstitial or sub-peritoneal with large and flat, or small and narrow pedicle, and, therefore, the great difficulty of judging the subject. But as to the best mode of delivery in these cases, whether to employ the version or the forceps, Depaul declares himself decidedly in favor of the latter, and a bitter enemy to the the former. He produces statistics to strengthen his remarks, taken from his own wards, (Hopital des Cliniques) of all the cases which entered there for the last twenty years, with a deformity of the pelvis measuring from 6 to 9½ centimetres. True, the analogy of an osseous deformity which is resisting, and a deformity produced by a tumor more or less yielding to the passage of the fœtal head is not vigorous, yet it possesses some merit in favor of one or the other procedure. The results were the following: Forty-two cases with pelvis from 6 to 9½ centim., where version was employed, he had 18 mothers dead, 24 living; total, 42. Thirty-four children dead, 8 living; total, 42. Of 108 cases with pelvis from 6 to 9½ centim., where forceps were used, he had 24 mothers dead and 84 living; total, 108; and 25 children dead and 83 living; total, 108. Of seven cases with complication of fibrous tumors (sub-peritoneal) he had two cases where spontaneous delivery took place, of which two mothers living, and two children dead. Two cases by version of which two mothers dead and the two children dead. Of one application of the forceps he had one mother living and one child living, the two remaining cases were delivered by craniotomy, of which only one mother living. All this shows largely in favor of the forceps, and I believe this is by no means a point much contested in obstetrics.

---

*The two blades of the knife are hidden in the olive, and as this enters the stricture, a little button in communication with a spring in the handle of the sound being turned, the olive slightly opens itself laterally the two blades emerge from the olive and incise the point of stricture. The operation is not painful.

The concourse for six vacant places of "Professeur Agrégé" at the Paris School of Medicine, has just taken place; it was for the section of pathology and legal medicine. The successful candidates were M. M. Bouchard, Ollivier, Chalvet, Lecorché, Brouardel, and Cornil. I will give you, in a word, the manner in which this concourse is conducted. Eighteen candidates presented themselves. The task is the following:

For Admissibility.—1. A written test of five hours on an anatomico-physiological subject, (the mucous membrane of the small intestines.) 2. An oral test of three-fourths of an hour, after three hours preparation, without books of course, (internal pathology.) Five of the candidates were declared *non-admissible*, which left thirteen for the

Definite Test.—1. Oral test of one hour after twenty-four hours reflection. 2. Written proof of one hour on legal medicine. (Report upon a supposed case of abortion.) 3. Clinical proof; two patients; twenty minutes to examine them; twenty minutes reflection; twenty minutes of lecture on their cases. 4. Printed thesis to be ready in twelve days; this has to be sustained, during one hour against the arguments of two competitors.

R. R. Good, M.D.

Montgomery, Ala., March 24, 1869.

Enclosed I send you a deeply interesting letter from my friend Dr. W. Neftel, of New York, on a subject of vital interest to us all, and one in which I am glad to see you are especially interested. The doctor has very kindly given me some liberty in the use of this letter, and I do not know how I could better serve the interest of the profession than by asking you to give it a place in your widely circulated and valuable journal.

Allow me to say that Dr. Neftel beautifully illustrates, in his own example, by his valuable contributions to science, the wisdom of the system of training to which the medical student is subjected in the schools where he was educated, and which he so graphically delineates in the following letter.

I am, very sincerely, yours,
W. O. Baldwin, M.D.

New York, December 2, 1868.

Dr. Baldwin:

According to your desire expressed in a letter to Dr. Sims, I take great pleasure in directing your attention to the reports of Dr. Taccoud, who was sent by the French authorities to investigate the subject of medical education in the different foreign universities. But you will, perhaps, allow me to give the result of my own observations, derived from my long connection with the different European Universities, (London, Paris, Germany, Russia,) where I have been engaged in active studies during many years. My impression is, and I think it will be confirmed by all who have followed us in the modern progress of medical science, that the German schools are, at present, the most productive of all, and I ascribe this fact to three causes.

In the first place, to the high standard of preliminary education of the student. Before being admitted to the medical, or any other department, the young man is expected to have finished his course of studies in a gymnasium, where he has received an excellent classical and mathematical instruction. He has been taught to understand the Greek and Latin writers, as well as the French and English, besides history and geography, algebra, geometry, trigonometry, the rudiments of chemistry and natural sciences, and has acquired a thorough knowledge of physics. He then pursues his studies in the medical department for, at least, four summer and four winter sessions. During the first years, he studies anatomy together with histology, physiology, chemistry, pathological anatomy, general and special pathology and therapeutics, principles of and operative surgery and obstetrics, working at the same time in the chemical, physiological and pathological laboratories. In the last sessions only, the student attends the different clinics—medical, surgical, obstetrical, ophthalmological, dermatological and psychological. These studies completed, the student generally continues, voluntarily, for one or several years, to devote himself, under the guide of a celebrated professor, to some special branch of medical or collateral science.

The next cause of the progress of medicine is the institution of free teachers, so-called *privat-docents.* Any gentleman, having undergone his professional examination and having shown his proficiency by some original researches, is allowed to be connected with the faculty as a lecturer, and full access is granted him to the laboratories, museums and libraries. A great number ot young and talented physicians, avail themselves of this opportunity, and there is scarcely any subject in connection with medicine which is not taught by them. Upon their ability and work only depends their success to attract students and be offered a chair in their own or any other faculty. From these *privat-docents* have risen the greatest men of science, the carriere of professor being perfectly free and open only to real talent and merit. The immediate consequence of this institution is that the German universities possess the best professors, who devote their life to science and instruction with the most admirable results.

Lastly, a favorable influence is exercised upon the development of science in Germany by the relation between the different faculties of the university. The medical faculty, although constituting a unit, is nevertheless closely connected with the others—the faculties of theology, philosophy and laws. They are under the same direction, and the didactic instruction is generally delivered in the same building. From this intercourse a great benefit is derived by the students. The medical student is enabled to acquire a knowledge of higher mathematics, physics and other natural sciences which are in relation to his own favorite studies, and in consequence of this, we find the greatest chemists and natural philosophers to be medical men, and a number of physiologists, great mathematicians.

I may add, that some years ago this system of medical education was, in a certain degree, introduced in Italy, and has already made there a great revolution in the progress of science. Especially in Russia this system has called forth a large number of remarkable *savants* in all branches of knowledge, and their researches during the last years, are of high importance.

The subject of medical education you wish to bring before the American Medical Association, can certainly not be equaled, in importance, by any other. Upon medical education principally depends the progress of medical science and the physical welfare of the community. And even the intellectual and moral development of a nation can be brought into close relation with the same subject, because *mens sana in corpore sano.*

Yours, very sincerely,
W. Neftel, M.D.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

"Judex Damnatur cum nocens Absolvitur."

Essays and Lectures. By Richard McSherry, M.D., Professor of Principles and Practice of Medicine in the University of Maryland.

This work consists of six essays and lectures by Prof. McSherry, written and delivered on various occasions, and now collected into one attractive volume. Taken as a whole, it belongs to the class of writings which form a connecting link between science and literature, in the strict sense of the term.

Some of the articles belong entirely to general literature as regards their subject matter, and therefore any extended notice of them would perhaps be scarcely appropriate in a scientific review. The fact, however, of their medical authorship is a sufficient warrant for us in calling the attention of the profession to them, in order that, as elegant results of leisure from the arduous labors of medical practice and of medical teaching, they may be enjoyed by others who are laboring in the same fields.

In our capacity of reviewers we regard the literary, as well as the scientific interests of the profession, and we shall always gladly welcome works, which, like the present one, adorn science with the graces of literature.

The first of these essays, that upon the "early history of Maryland," touches lightly, but very satisfactorily, upon the controversy with regard to the beginning of religious toleration in America. Toleration, however, as Prof. McSherry very clearly shows, is hardly the right term to employ, as that word implies inequality; whereas, it was the peculiar glory of Lord Baltimore's rule in Maryland, that under it perfect religious freedom was enjoyed by all. This defence of Lord Baltimore is not ill-timed, inasmuch as certain jealous writers, who would, perhaps, aspire to being considered historians, have lately tried to detract from the good name and from the honor belonging to Maryland, of being the "land of the sanctuary," as she was once termed, the first asylum among the nations, where all could enjoy equal rights in the worship of God.

The essay upon "Mexico and Mexican affairs," gives a brief, but lucid and interesting account of the late revolution in that country, ending in the tragedy of Maximilian's death. The author exposes the dubious character of Mr. Seward's appeal for mercy to Juarez in behalf of Maximilian, when the United States had the right, and no doubt the power also, to save the gallant young Austrian prince from the bloody revenge of his half-civilized conquerors.

In the "Mexican campaign sketch" are recorded the first impressions made by that beautiful country upon the author, when, as a medical officer of Gen. Scott's army, he saw it during the war of the United States upon Mexico. It will bring to the recollection of many readers a delightful book, published some years ago by Professor McSherry, under the title of El Puchero, in which the author's thoughts were presented with the life and freshness of personal observation.

The last three articles treat of subjects connected with the author's own profession. They consist of an epistle on homœopathy; and two lectures, one upon hygiene and the other upon health and happiness. As the author remarks, they occupy the border ground between medical and general literature. The literary tone will render them the more agreeable to physicians, and the scientific information they contain will commend them to non-professional readers.

The epistle on homœopathy first appeared as an article in this journal. In it the hard logic of common sense is brought to bear upon the inanities of homœopathy, while, at the same time, there is a vein of graceful humor running through the discussion of the subject, which reminds us of Henry Rogers' treatment of the same theme in the Greyson Letters. This method of handling it is almost inevitable, because the subject, from its intrinsic absurdity, is necessarily provocative of ridicule.

The lectures upon hygiene and upon health and happiness are mutually illustrative of each other. The former was addressed to medical students, and contains a satisfactory *résumé* of the facts of the science of hygiene, and of its present status; the latter, which was delivered before a non-medical audience, is of a more purely literary character, but is full of sound scientific teaching imparted in a most agreeable manner.

The whole work is evidently the product of a trained and cultivated mind, and we heartily commend it to the profession. S. C. C.

CONSTIPATED BOWELS—CAUSES AND MEANS OF CURE. By S. B. BIRCH, M.D., M.R.C.P. London. Lindsay and Blackiston, Philadelphia. 1868. 12mo. $1.25.

All physicians are desirous of obtaining something reliable and definite in regard to the pathology and treatment of constipation. There are few conditions, for which the practitioner is so frequently called upon to prescribe, and few for the relief of which his prescriptions are to his patients and himself so unsatisfactory. The work of Dr. Birch accomplishes at least one good purpose, in furnishing a satisfactory resumé of what has been written and taught upon this subject. In the many cases described and relieved by him, the practitioner may obtain a useful and convenient hint to guide him in similar contingencies, but further than this the book will not be satisfactorily consulted. There is nothing new offered, and the pathology of the subject is treated (as far as it is treated) according to views familiar to the profession.

The author is in his style unusually confidential. He informs the scientific world that both his parents and himself have suffered very cruelly from constipation; and if, in his descriptive, he fails to elicit the admiration of his readers, he certainly evokes the sympathy of all who are not totally insensible to the pangs of bodies undergoing intestinal trouble. After a study of his work, the reader not only feels familiar with the interior organization of its constipated author, but becomes an involuntary authority in regard to the inside view of the whole Birch family. A familiar style has its charms, but it should, also, have its boundaries, and with all respect for Dr. Birch, it must be affirmed that his exposé of himself has been more complete than that of his subject.

Those who have not given special attention to the more modern views in regard to constipation, will find in this work a clear and brief recapitulation of our most reliable teachings, and will certainly derive practical information in relation to the many harmless and efficient modes of relieving varied cases of this common and obstinate condition.

I.—The Medical Formulary. By B. Benjamin Ellis. Twelfth edition. H. C. Lea, 1868.

II.—Report of Seven Operations for Stone, with Statistics of Ninety Cases. By Prof. P. F. Eve. Nashville, Tenn.

III.—INTRA-MURAL FIBROUS TUMOR—REMOVED FROM ANTERIOR WALL OF UTERUS. By Prof. W. H. BYFORD. Chicago.

IV.—A GLANCE AT MEDICAL HISTORY. An address delivered before the Richmond Academy of Medicine. By R. A. WISE, M.D. Richmond, Va.

V.—THE DYNAMICS, PRINCIPLES AND PHILOSOPHY OF ORGANIC LIFE. By Z. C. MCELROY, M.D. Zanesville, Ohio.

VI.—PHYSICAL SURVEY OF VIRGINIA. By M. F. MAURY, L.L.D. Lexington, Va.

VII.—PATHOLOGICAL PHENOMENA GENERALIZED. By H. BACHUS. Montevallo, Alabama.

VIII.—OPERATION FOR VESICO-VAGINAL FISTULE. By NATHAN BOZEMAN, M.D. New York.

I. The formulary of Dr. Ellis has long been recognized as one of the best before the profession. This last edition has been much enlarged and greatly improved. Those who use formulas, who believe that there can be a justifiable reason for attempting to adapt the prescription made for a single phase of some factitious case, to conditions necessarily varying and different from the typical case, will find this formulary clearly and concisely arranged for their purpose. The entire use of formulas is, however, unscientific, irrational and illogical; the most superficial knowledge of physiology, pathology, and materia medica, is sufficient to demonstrate the absurdity of applying any prescription whatever, originally made for the transitory phase of one disease to the relief of conditions erroneously and illogically assumed to be similar. Changing as all persons are hourly in physiological integrity, and, if diseased, in pathological phenomena; differing as all do under the operation of medicines, and under the influence of diseases; stamped, as all are, with differences in temperament, diathesis, idiosyncrasy, etc., the whole assumption of justice or common sense in attempting to apply the prescription made for one phase of a disease in one individual to the mitigation of pathological conditions in another individual, even though the disease be called by the same name, is so irrational and unsafe, that it is a cause of surprise to all that such absurdities are actually perpetrated. Still formulas have been always used, and however unjustifiable such a course may be, they will still be used. As long as such practice exists, "the formulary" of Ellis will be one of the best attainable. It contains much useful information in regard to the comparatively new system of giving medicine by inhalation. Some of the old, unscientific and incompatible prescriptions, (such as the "mixture with carbonate of potash," pg. 88, "tincture of tolu with digitalis," pg. 90, older editions,) have been expunged. "Griffith's myrrh mixture" is still allowed to remain, though it is evident to any one, fairly informed in chemistry, that the mixture is not only incompatibly prepared, but that it must be in the main inert.

II. The report of Dr. Eve is short, well arranged and interesting. It should be consulted by all practical surgeons. His success in this department of surgery is highly creditable.

III. The pamphlet of Dr. Byford is interesting in many respects. It adds one more to the list of uterine fibroids successfully removed. It gives in detail the steps necessary for successful removal. It furnishes evidence of entire success in removing a large tumor when such success is not anticipated. It shows that recovery may be complete. That the dangers of such an operation and its results are somewhat magnified. That the usual prognosis may be correctly modified.

The removal of this tumor was certainly necessary on account of repeated colliquative hæmorrhages and bad constitutional condition. The tumor weighed twenty ounces avoirdupois; was five and a half inches long; four and three quarters broad and four and a quarter thick. It was so firm that very rough handling and severe traction did not mutilate it "scarcely at all."

IV. The address of Dr. Wise, for one personally and professionally a junior in our ranks, is certainly creditable. The address is defaced with many typographical errors.

V. This pamphlet of Dr. McElroy bears relation to a subject, in regard to which science is after all that has been written, profoundly ignorant. Speculations, casuistic reasoning, metaphysical deductions, etc., in connection with organic life, the vital force, the vital essence, etc., have been unceasing, but the result only shows how irretrievably man's power is futile in attempting to raise the impenetrable veil which separates the finite from the Infinite. Dr. McElroy's effort is like all others, ingenious, ambitious, but unspeakably futile. Those who essay this subject would do well to bear always in mind the effort and end of Icarus.

VI. The physical survey of Virginia is the first part of Prof. Maury's labor in a new field. It is intended that his surveys shall furnish a complete exhibit of the topography, geography, mineralogy and agricultural resources of his native State. The work contemplated is great, but it rests in honest, honorable, and efficient hands. Apart from the entire capability of Prof. Maury to accomplish his herculean task, the fact that it is with him a labor of love and patriotism, is an additional guarantee of its faithful execution. The man who could refuse the position and emoluments of chief of the bureau of meteorology of the French empire, to accept the professorship of physics in the Virginia Military Institute, shows a nobility that places him far above the position refused, and secures for him the sympathy and good wishes of all true men in a brilliant discharge of the labor undertaken; in a task which he is so thoroughly fitted to discharge with ability and success. As was well and eloquently said, by the distinguished gentleman who handed him his commission, "in accepting this position, you do your State far greater honor than she is capable of conferring upon you." It is a noble work, undertaken for a grand, historic, and noble people; for an Institution of great distinction.

VII. So far as the writer can judge, the author of "pathological phenomena generalized," would have made less of a failure, if he had first learned pathological phenomena in detail. It is well to think and to reason, but it is first necessary to study.

VIII. The pamphlet on vesico-vaginal fistule is designed to show the superiority of Dr. Bozeman's speculum over that of any other; to show the superiority of his button-suture over the clamp or silver wire sutures; to show the advantages of his "right-angle position upon the knees and chest," over that suggested by Sims and others. While any self-retaining speculum, whether suggested by Thomas, Emmet, Sims, Nott, Bryant, Pallen, Cusco, or Storer, is fully adequate on ordinary occasions; it must be admitted that the speculum of Bozeman has some advantages which are specific; where the vagina is large and relaxed; where there is great redundancy of tissue, with coincident obesity, this is specially the case. At the same time, it must be borne in mind that any self-retaining speculum, or even the original duck-bill of Sims, is sufficient for ordinary purposes.

While the clamp suture has been practically abandoned; while few adopt Mastin's operations, and while Sims and his followers have demonstrated the fact, that the use of the simple silver wire is ordinarily efficient, it can not be denied that Bozeman's button-suture has succeeded, where Sims, Emmet, and other experts, have failed to obtain success, by the use of the simple wire. This fact is important and worthy of recollection. It is not probable that Bozeman's position, with his instrumental "rest," will take precedence over the position ordinarily selected by obstetric surgeons.

The pamphlet of Dr. Bozeman is worthy of fair and full consideration. He is entitled to credit for his liberality and fairness, when stating that his successes, where well known experts have failed, are due not to any superiority on his part in surgical knowledge or dexterous manipulation, but to the advantages inseparable from his form of suture. On page 17, he is somewhat empirical, where he states, that the parts were "found in a suitable condition, from *our preliminary treatment.*" This language is unworthy of its author. It is also to be regretted that Dr. Bozeman is so culpably at fault in his style and orthography. In reference to his own personality he uses vaguely and miscellaneously the words I, me, we, us, mine, our, myself, ourselves, regardlessly of all the rules sanctioned by custom or demanded by the grammarian. Such faults are culpable enough in an extemporaneous speaker, but in a carefully prepared monograph, they are inexcusable.

MISCELLANEOUS.

"Non Omnes Eadem Mirantur Ament Que."

ANALYSIS OF THE LIFE OF DR. W. O. BALDWIN.—Dr. William Owens Baldwin was born on the ninth of August, 1818, in Montgomery county, in the State of Alabama, about four miles from the beautiful inland city bearing the same name. His father, whose name he bears, is a Virginian by birth, and his mother, Miss Cecilia Fitzpatrick, the sister of the Hon. Benjamin Fitzpatrick, formerly Governor of the State of Alabama, was born in Georgia.

Dr. Baldwin, after completing his studies, literary and classical, determined to apply himself to the study of the profession which he now adorns. At the early age of sixteen years, he opened his first medical book in the office of the distinguished Dr. McLeod, of Montgomery.

After being initiated into the duties of an office student, he left for Lexington, Kentucky, and matriculated at the Transylvania University, in which institution he became the private pupil of Dr. Charles Caldwell, then Professor of the Practice of Medicine. He received the Doctorate at the unprecedented (and, as I have often heard him say, unfortunate) age of eighteen years. While in the University, and almost a beardless boy, he demonstrated in his character and acquirements, those traits which eventually distinguished him.

Though a graduate of medicine, he determined to continue his classical studies and made immediate arrangements to go to the University of Virginia. An accident, beyond his control, prevented his carrying out this laudable determination; but, for many of the first years of his professional life, he gave to the classics his special attention.

On the first day of May, 1837, he offered his professional services to the citizens of Montgomery, and was so assiduous and attentive to those seeking his counsel and advice, that his practice became at once sustaining, and he was taken into partnership by his former preceptor, who died in twelve months after the occurrence just stated. For ten years, he devoted himself to his books, and being very intimate with the distinguished Professor of Obstetrics, Dr. William M. Boling, (who all know was an attentive student of the Science of Medicine,) they soon naturally formed an attachment for each other, and this attachment continued to become stronger, until a professional copartnership was entered into between them in the year 1848.

For eleven years these gentlemen studied and labored together for the advancement of science, and they accumulated a very large and lucrative practice. But, alas! the fell destroyer came and the delicate and feeble Boling succumbed to disease. (We were delighted some time ago to read a tribute to the memory of this noble and erudite physician, from the pen of his former partner and friend. It gave us a just idea of the style of the Doctor's composition; it was terse, forcible and pathetic.)

Dr. Baldwin has contributed much to the literature of his profession, and some of these contributions are as brilliant as they are scientific. In the American Journal of the Medical Sciences, we could point to many articles emanating from his fruitful pen. One has been particularly commented on by the press, as deserving of special attention—we allude to the paper on the "*Poisonous Properties of Quinine.*" In preparing this, he instituted a series of very valuable experiments upon animals, demonstrating, in various ways, the toxicological as well as the therapeutical effects of this extensively used medicinal agent. This paper is quoted as authority, not only in the English and French periodicals, and their standard works on Toxicology, but also in the United States Dispensatory and the medico-legal works of this country.

His oration before the Medical Association of the State of Alabama, (over which body he once presided,) "*On Physic and Physicians,*" is another remarkable paper worthy of notice. "It abounds in argument, apt illustrations and eloquent appeals in behalf of the dignity and claims of the medical profession. His critique upon the various systems of quackery of the past and present, is at once just and manly, and, if made more public, might produce good results."

We might go on and enumerate many of Dr. Baldwin's papers which have appeared in the journals of this country, His address to the Medical and Surgical Society of Montgomery, upon taking the presidential chair, marks him as an orator and finished scholar; and last, we invite attention to the address delivered before the American Medical Association in May last, when he was selected as the presiding officer of that National Congress of Physicians.

Dr. Baldwin has distinguished himself during a professional career of thirty-two years, not only as a practitioner of medicine and surgery, but particularly as "*an obstetrician*." The physicians of his native place look up to him as their chief authority on this important branch of science.

It is no small feature in the life of this gentleman, that he became distinguished as a practitioner of medicine in Montgomery, when he was compelled to meet, in professional competition, such men as Aimes, Boling, Marion Sims, Bozeman, and Berney. Dr. Baldwin never permitted even a surgical case to pass out of his office without making an attempt for its relief. He has performed many of the capital operations of surgery.

Dr. Baldwin is a firm and earnest friend, whose truthfulness is beyond cavil; his business capacity is great, as his ample fortune testifies; sociable, intelligent, reserved, but ready in speech and action, cheerful and genial, he is one to be admired and beloved. R. F. M.

KENTUCKY STATE MEDICAL SOCIETY—ABSTRACT OF PROCEEDINGS.—[*Furnished by Dr. M. E. Poynter, Recording Secretary.*]—The fourteenth annual meeting of this society convened in the library rooms, Lexington, on the 6th of April, and continued in sesion through the 7th and 8th. About fifty old members were present, and nearly seventy-five new were elected. Dr. L. B. Todd, of Lexington, chairman of the committee of arrangements, welcomed the society in these words:

Mr. President and Gentlemen of the Kentucky State Medical Society:

The pleasurable duty has been assigned me, as Chairman of Committee of Arrangements, to welcome you to the city of Lexington, which I do most heartily. Most cordially do I greet you, one and all; in the name of our generous and hospitable citizens I welcome you; in the name, and by the authority of the medical profession of this city and county I bid you welcome here. May your sojourn amongst us be alike pleasant and profitable.

No more benign or laudable motives could swell the bosom or inspire the acts of man than those that brought you here—the elevation of the standard of medical science—increasing blessings to humanity and the cultivation of social intercourse with each other. And to-day, while I hail you as true physicians—the triumph of medical Philosophy proudly challenges the admiration and justly receives the gratitude of mankind.

Scarcely, I conceive, could you have selected a more fitting place for your annual council than Lexington, where, so many of you before me now revisit scenes of your early life; here your Alma Mater stood proud of the long succession of her learned professors and generations of her distinguished sons. That noble temple of science, which long adorned our city, fell before devouring flames, but not before it had been converted into an institution of humanity, subserving practically the object of long years of medical learning and eloquent teaching. The home, too, of the heroic Nestor and the knightly Bayard of western surgery—the elder and junior Dudley. The one crowned with years and honors, lingers still in the bosom of his devoted family, surrounded by a grateful and admiring people, whose blessings fall as a gentle halo around his head. The other, alas! cut down in manhood's prime and glory, sleeps in yonder silent city, to whose tomb you will repair, and as you read, carved thereon, that ever cherished name, ETHELBERT, may the memory of that loved and gifted, true and noble one, long live in every breast. Nor could I forbear, gentlemen, personal reference here; in memory of a generation past and gone, I greet you, Mr. President; I welcome you, sir, returning with the honors of this Society to this city, where more than forty years ago, you practiced your loved profession. Many, very many of those for whom and amongst whom you labored and lived, have left the stage of life—their children remain, remembering your faithful services with gratitude, and some of us before you are of that number; in passing through our streets and sitting around our firesides, you scarcely see a familar face, but now and then recall a long-forgotten name. Injustice to the tradition of my day and the cherished history of my profession, would be charged upon me, were I, in this presence, to fail to recount, sir, the proud story so often told the children at their father's knee, how, when in 1833, this fair land was being devastated by that terrible scourge, Asiatic cholera, you faithfully labored at your post of danger and death, and bravely stood when others fled; how blessings from dying lips followed you from day to day, from mansion and cottage. The narrative, sir, of the deeds of christian heroism in the pages of the faithful historian of those times, will be a prouder monument to your memory, and more enduring than a marble temple reared to your name. May the evening of your life, whose lengthening shadows are falling fast around you, be calm and serene, and your end, which soon must come, be perfect peace—THEN may you hear that welcome of all welcomes—"Well done, good and faithful servant; enter thou into the joy of thy Lord."

I but obey the dictates of my own heart, and the wishes of my associates, when I welcome to our State, our homes, our Medical organizations, of which this is the chief. Prof. E. S. Gaillard, the learned and accomplished editor of the Richmond and Louisville Medical Journal, who, since last we met, has moved to our State from the glorious Old Dominion, and established his valuable journal in our midst—a monthly equalled by few and surpassed by none upon either continent. I am pleased, sir, to reassure you of the interest manifested, and wishes expressed in this society a year ago for your prosperity and happiness, and the succes and usefulness of your valuable journal.

Welcome, one and all—again I bid you welcome.

Drs. Murphy, Blackman, Williams, Carson, and Mussey, of Cincinnati, were introduced as visitors, and Drs. Murphy, Blackman and Mussey elected honorary members.

Several papers of importance were read and referred to the committee on publication, viz: On vaccination, by Dr. M. E. Poynter; Medical biography, by Dr. C. H. Spillman; Medical ethics, by Dr. S. P. Craig; Obstetrics, by Dr. George S. Bryant; Pharmacy, by Dr. Thos. E. Jenkins; Botany, by Dr. L. J. Frazee; Practical Medicine, by Dr. W. S. Chipley; Surgical diseases of Bones, by Dr. G. W. Bayless, &c. Some of these were able and instructive. The subject of a State Inebriate Asylum was discussed, and a memorial was presented by a lodge of Good Templars, of Louisville. It was placed in the hands of a committee, who were instructed to confer with the Legislature upon the subject, and report at the next meeting. The establishment of a State botanical garden was also referred to a committee with like instructions.

The officers for the ensuing year are as follows:

President—Dr. H. M. Skillman, Lexington.

Senior Vice-President—Dr. W. A. Atchison, Bowlinggreen.

Junior Vice-President—Dr. R. C. Chenault, Richmond.

Recording Secretary—Dr. M. E. Poynter, Midway.

Corresponding Secretary—Dr. J. M. Bodine, Louisville.

Treasurer—Dr. L. B. Todd, Lexington.

Librarian—Dr. D. W. Yandell, Louisville.

Committee on Publication—Drs. S. P. Breckinridge, T. P. Satterwhite, and Hamilton Griffin, Louisville.

The Society being entitled to twenty delegates to the National Medical Association, which meets in New Orleans, on the 4th of May proximo, appointed the following delegates: Drs. J. Hale, Owensboro; J. D. Jackson, Danville; J. R. Desha, Lexington; R. W. Dunlap, Danville; J. E. Woodbridge, Adair county; W. A. Atchison, Bowlinggreen; S. M. Mills, Louisville; A. O. Price, Harrodsburg; H. C. Wood, Owensboro; H. M. Skillman, A. S. Allan, J. M. Bruce, John Dillard, Lexington; W. U. Martin, Richmond, with power granted to the President to fill up.

It was expected that some action would be taken by the Society in regard to medical education, and considerable discussion was anticipated, but upon consultation it was agreed to await the action of the National Association, which it is expected will fully canvass this subject. There was a very general feeling manifested, however, to place the Society on record in favor of a higher order, and more advanced course of education in medical schools, and some action in that direction by the National Association is fully anticipated.

The committee to memoralize the Legislature on the subject of registration of births, marriages, and deaths, reported that nothing had been done, as it was found that the bill could not be carried through, and it was thought advisable not to press it, until its chances were more favorable, thus leaving the cause of statistical science deplorably in the dark in our State.

The meeting was an exceedingly pleasant and harmonious one, and fraught with much good, both professionally and socially. A most pleasant reception was given to the members of the Association by Dr. H. M. Skillman;

and on the evening of the 8th the medical societies of Lexington and Fayette county, entertained the entire Association at a banquet, given at the Phœnix Hotel. This was not only a most hospitable, but a brilliant, entertainment, and will be long recollected by those who were fortunate enough to be present.

The Society adjourned on the 8th, to meet in Bowling-green on the first Tuesday in April, 1870.

THE TENNESSEE STATE MEDICAL SOCIETY.—[*Furnished for publication in this Journal.*]—The 36th annual meeting of the Tennessee State Medical Society was held in the Capitol, in the city of Nashville, April 7, 1869.

At 10 A. M. the society was called to order, Vice-President Grant in the chair; President J. D. Winston being in too feeble health. This proved to be the most interesting meeting ever enjoyed by the professon of Tennessee. There were about one hundred members present. A pleasant feature was the regular monthly meeting of the city medical society occurring on the evening of the first day, and to which all were invited.

The minutes of the last proceedings were read and approved.

The first report made was by Dr. C. K. Winston, on the address of ex-President Lipscomb; noticing briefly the subjects of intermarriage of relatives; the swarms of quacks in towns; the importance of disseminating physiological and anatomical knowledge through our high schools, and the necessity of a higher standard of medical education before receiving the degree. He says: "The great trouble consists in the fact that those who teach and those who get the emoluments, examine the students and confer the degree. There ought to be a board of competent and disinterested examiners for every medical school of any note. Students should be allowed to graduate upon their merit only. * * * * Unfortunately for the profession and community, there is too much underbidding among the medical schools, and some effort should be put forth to arrest it, otherwise, in a few years, a diploma will be worthless in the hands of the possessor."

Dr. Searcy read a paper on the possibility of preventing *scarlatina* by early and repeated cauterization of the fauces.

Resolution passed, offered by Dr. Whittaker, that the

Medical Society of the State of Tennessee appoint a committee to memorialize the Legislature to pass an act forbidding the sale of medicines, nostrums, or compounds in the State, whose composition is not known or made public.

Dr. T. L. Maddin read a very interesting paper on the subject of Diphtheria; it is an excellent essay and exhaustive, particularly as regards the treatment. Referring largely to authorities, we were surprised to hear no notice or allusion, whatever, made to the prize essay obtained, by Dr. Gaillard, from the Georgia State Medical Society in 1866, probably the most complete work ever published on this subject.

Dr. Eve reported a case of gunshot wound of the brain, in which a portion of a minnie ball was removed from the tentorium cerebelli, with brief notices of analogous cases.

Dr. J. W. Thompson gave his experience on the use of medicated slippery elm, both as pessaries and bougies.

Dr. J. W. Morton, jr., read a description of a late railroad disaster, in which both engineer and fireman were horribly mangled and killed.

Dr. J. W. Richardson, from the country, presented, through the business committee, resolutions proposing that the American Medical Association recommend immediate action be taken in each State, so as to place the interests of the profession under the control of the State Medical Society, by organizing an examining board, independent of all teachers of medicine and surgery. This has already been done in the State of Georgia by its medical society, just adjourned at Savannah, and has existed for some time in North Carolina.

Dr. Singleton offered a resolution memorializing the American Medical Association, asking its aid in obtaining access to the archives of the medical department of the late Confederate army. This was passed.

The following delegates to the American Medical Association were appointed: Drs. Compton, Eve, Plunkett, Bowling, Nichol, Manlove, Gordon, Grant, German, Hanner, Crawford, Rhea, Brown, Whittaker, Evans, Singleton, and Thompson.

The officers elected for the ensuing year are: J. F. Grant, President; F. A. Ramsey, W. L. Nichol, and S. P. Crawford, Vice-Presidents, and J. D. Plunkett, and D. Dupre, Secretaries.

Mental and Manual Labor.—Professor Houghton, of Trinity College, Dublin, has published some curious chemical computations respecting the relative amounts of physical exhaustion produced by mental and manual labor. According to these chemical estimates, two hours of severe mental study abstract from the human system as much vital strength, as is taken from it by an entire day of mere hand work. This fact, which seems to rest upon strictly scientific laws, shows that the men who do brain work should be careful, first, not to overtask themselves by continuous exertion; and, secondly, that they should not omit to take physical exercise, on a portion of each day, sufficient to restore the equilibrium between the nervous and the muscular systems.—*Med. and Surg. Journal.*

Consumption.—An encouraging view of the curability of consumption is taken by Dr. C. T. Williams, of the Brompton Hospital, in some recent papers which he has contributed to the Lancet. He bases his conclusions on 500 cases which had each been one year under observation. Of these, 116 are ascertained to be dead and 384 alive. No less than 72.4 per cent. of the deaths happened five years and upward after treatment, while 26.7 per cent. lived ten years and upward. The condition of the 384 surviving patients is shown in the following table, the first column of which gives the number of years since they came under medical notice:

Duration.	Well.	Tolerably Well.	Invalid.	Total.
1 to 4 years	49	34	45	128
5 to 9 years	31	32	37	100
10 to 14 years	35	14	22	71
15 to 19 years	19	6	4	29
20 years and upwards	41	7	8	56
	175	93	116	384

Dr. Williams justly thinks that this large preponderance of patients who may be considered to have recovered their health over those who still remain feeble is very remarkable:

"It shows what reparative power nature can put forth when the progress of the disease is delayed. The 384 living cases include members of every profession—Parliament, the army, navy, church, medicine, law, business, &c., and are, therefore, liable to dangers consequent on each calling; as exposure to great variations of temperature from which military and naval men suffer; or close confinement in hot rooms and occasional pressure of work, the lot of many business men; or, again, the strain on the lungs which public speakers entails on members of Parliament, clergymen, barristers, public lecturers, and the like."—*Pall Mall Gazette.*

Ricord was recently at a Paris masked ball, disguised as Cupid. A friend exclaimed: "Great heavens, Ricord! *you* as Cupid. I can not conceive you except as Mercury."

The New York Medical Gazette is responsible for the following: "Why is the ulnar groove at the elbow commonly called the 'funny bone?' Because it's a humerus point."

Acne.— There seems good reason to doubt the benefit of much internal medicine in such cases. Acne is a purely local disease, and must be met with local remedies. Hebra, whose experience in skin diseases transcends that of any living man, recommends thorough washing and rubbing with any good soap every night, or every other night, and then the application of the following salve: ℞.. Lac. sulph. potass. carbonat., glycerrh., aq. laurocer., spir. vin. gal. ā ā ʒ ij. This should be left on all night, and washed off in the morning, without the use of soap. This salve causes a slight pityriasis rubra, which quickly disappears on intermitting its use.—*Hautkrankheaiten, s.* 518.

Antiseptic Properties of the Sulphites—Recent experiments have shown that the sulphites of lime, hyposulphite of magnesia, and the sulphites of magnesia and soda, posses all the antiseptic properties of sulphurous acid, with the advantage that their action is more uniform and certain. In experimenting on animals and on himself, Dr. Polli (Med. Times and Gazette) found that large doses could be taken without risk. On killing animals treated with sulphites, and others not so treated, he found that the former were more slow to decompose, and, indeed, remained quite fresh when the others had become putrescent and offensive. Another series of experiments showed that the administration of the sulphites was sufficient to effect a more or less rapid cure where blood-poisoning was present, as in fevers.—[*Humboldt Medical Archives.*

Falling of the Hair.—The most satisfactory treatment of alopecia pityrodes is the use of tannin, ℈iv., adipis, ℥j. The hair does not fall so much, and the increase is more obvious. Oleum sabinæ, gtt. v.—xxx. to ℥j. adipis, has this effect still more decidedly, but causes the hair to become harsh, stiff, and of a dirty color, and has an unpleasant odor. Besides this, it sometimes causes severe headache.

Second Attacks of Small-Pox.—It is no new thing for variola to attack persons a second time. Jenner refers to seventeen such cases among the nobility of England, more than half a century ago. Upwards of two hundred such cases were reported in London in 1851. In Wirtemburg 143 cases were recorded, of which 28 died. The proportion after inoculation is still greater. One instance is on record of five children having been inoculated with small-pox, successfully, four of whom subsequently contracted the disease, which was fatal to one of the number. An English surgeon is mentioned as having always an attack of small-pox after attending a patient with the disease.—[*Pacific Medical and Surgical Journal.*

To Make Quinine Pills.—Dr. Louis E. Atkinson, (Phil. Med. and Surg. Reporter,) recommends the following formula: ℞. quiniæ sulphatis, grs. xx, acidi tartarici, grs. iv, aquæ, m. i. Triturate the quinine with the acid until thoroughly incorporated, then add the water, and divide into pills. By this process a mass may be made, which will not speedily harden as in Parrish's process with aromatic sulphuric acid; besides, it permits a larger mass to be mixed at a time, and does not require any special pharmaceutical skill.

Treatment of Typhoid Fever. By E. Shedd, Esq., Surgeon to the Ardwick and Ancoats Dispensary, Manchester.—Great success having this year attended my treatment of typhoid fever, I have thought that possibly a few remarks on my mode of treatment may not be without interest.

My treatment is the following: As soon as there is any tenderness in the abdomen upon pressure, I prescribed drachm dose of glycerine (in the case of an adult), to be repeated three times a day. Under this treatment, the temperature gradually subsides, becoming normal towards morning, and rising to 99° Fahr. towards evening. The secretions soon improve; a profuse perspiration frequently prevails; diarrhœa is quickly checked, and the patient becomes convalescent.

Of the numerous cases which have come before me in my practice, I have treated twenty-seven in the manner described, and with complete success, as not a single death from typhoid fever has occurred—a fact which, as it seems to be, is the more remarkable, as I have much reason to believe that the disease has been of a more virulent type than usual, because I find, from my own observations and the information of others, that fevers of the typhoid class have been this year more than usually prevalent, at least in Liverpool, Manchester and Salford.—[*British Medical Journal.*

TREATMENT OF HÆMORRHOIDS.—In reference to this common but painful and troublesome affection, the Medical Press and Circular publishes an article from S. Mulvaney, M. D., in which he strongly urges the use of belladona for hæmorrhoids. The first case which he reports was one where the piles were internal, and of two years' standing. The tumors were large, protruded, and bled during defection. The patient was much emaciated, and suffered from general debility, consequent upon constant suffering and repeated hemorrhages. The treatment consisted in clearing out the bowels with oil, and then in the administration of the fluid ext. of belladonna in two and a half drop doses every four hours, with injections of cold water twice a day. In two days the bleeding had quite ceased, and in ten days the hæmorrhoids had entirely gone and did not return.—*St. Louis Med. Reporter.*

PHYSIOLOGICAL ACTION OF BELLADONNA.—Mr. Christopher Heath states (The Practitioner) that belladonna, whether applied locally or given internally, by its action on the vaso-motor system of nerves diminishes the calibre of the capillaries and thus reduces the vascularity of an inflamed part. Its action is thus peripheral, while that of aconite is central or upon the heart. The action of the one is to assist the tissue to get rid of the superfluity of blood it contains and resist its further entrance, while the other diminishes the flow to the part, hence in many morbid conditions the two may be advantageously combined.

MEDICAL NEWS.

"Nulla Dies, Sine Linea."

Recruits of the Medical Army.—Furnished as follows: Bellevue Medical College, New York, 124; Buffalo Medical College, New York, 34; College of Physicians and Surgeons, New York, 92; University Medical College, New York, 82; Washington University, Baltimore, Maryland, 80; Rush Medical College, Chicago, Illinois, 108; Medical Department of Yale College, New Haven, Conn., 8; Cincinnati College of Medicine, Cincinnati, 28; Medical College of Ohio, Cincinnati, 70; Miami Medical College, Cincinnati, 48; Massachusetts Medical College, Boston, 58; University of Nashville, Tennessee, 71; Jefferson Medical College, Philadelphia, Pa., 126; University of Pennsylvania, 130; Kentucky School of Medicine, Louisville, 31; University of Louisville, Ky., 70; Medical College of Virginia, Richmond, 15; Memphis Medical College, Memphis, Tenn., 3.

India Rubber Sponge.—The Medical Times and Gazette says: "This seems a very ingeniously contrived substance. It is an artificial sponge, made apparently by filling India rubber in a fluid state with bubbles of gas, and then allowing it to harden, the result being a mass of India rubber as full of holes and pores as a French roll. It is very elastic, will take its fill of water easily, and may be used for many purposes instead of stiff sponge—as, for instance, in the bath as a flesh brush, for cleaning paint, windows, etc. But it also seems capable of being made into pads for fracture, hernia, etc., and, if so, its lightness, pliability and elasticity may make it of great service.

Prof. Robley Dungleson.—The scientific world will learn, with great regret, the death of this distinguished physician, successful teacher, eminent author and good man. He died in the early part of April.

EDITORIAL.

"Nullius Addictus Jurare in Verba Magistri".—HOR.

AMERICAN MEDICAL ASSOCIATION.—The Twentieth Annual Session will be held in New Orleans, La., May 4, 1869, at 11 A. M.

The following Committees are expected to report:

On Diseases of the Cornea, Dr. Jos. S. Hildreth, Illinois, Chairman; on Cultivation of the Cinchona Tree, Dr. Lemuel J. Deal, Pennsylvania, Chairman; on Excision of Joints for Injuries, Dr. J. B. Reed, Georgia, Chairman; on Alcohol and its Relations to Medicine, Dr. John Bell, Pennsylvania, Chairman; on the Cryptogamic Origin of Diseases, with special reference to the recent microscopic investigations on that subject, Dr. Edward Curtis, U. S. A., Chairman; on Clinical Thermometry in Diptheria, Dr. Jos. G. Rich, New York, Chairman; on Operations for Hare-lip, Dr. A. Hammer, Mo., Chairman; on Prophylactics in Zymotic Disease, Dr. Nelson L. North, New York, Chairman; on Inebriate Asylum, Dr. C. H. Nichols, D. C., Chairman; on the Influence of the Pneumogastric Nerve on Spasmodic and Rhythmical Movements of the Lungs, Dr. Thomas Antisell, D. C., Chairman; to Examine into the Present Plan of Organization and Management of the United States Marine Hospitals, Dr. D. W. Bliss, D. C., Chairman; on the Utilization of Sewerage, Dr. Stephen Smith, New York, Chairman; on the Influence of Quarantine in preventing the introduction of Disease into the ports of the United States, Dr. Elisha Harris, New York, Chairman; on Nurse Training Institutions, Dr. Samuel D. Gross, Pennsylvania, Chairman; on Commissioners to aid in Trials involving Scientific Testimony, Dr. John Ordronaux, New York, Chairman; on Annual Medical Register, Dr. John H. Packard, Pennsylvania, Chairman; on Devising a Plan for the Relief of Widows and Orphans of Medical Men, Dr. John H. Griscom, New York, Chairman; on Veterinary Colleges, Dr. Thomas Antisell, D. C., Chairman; on Specialties in Medicine, and the Propriety of Specialsts Advertising, Dr. E. Lloyd Howard, Maryland, Chairman; on Library of American Medical Works, Dr. J. M. Toner, D. C., Chairman; on Vaccination, Dr. Henry A. Martin, Massachusetts, Chairman; on Decomposition of Urea in Uræmic Poisoning, Dr. H. T. Noel, Maryland, Chairman; on the best method of Treatment for the different forms of Cleft Palate, Dr. J. R. Whitehead, New York, Chairman; on Rank of Medical Men in the Navy, Dr. N. S. Davis, Illinois, Chairman; on Medical Ethics, Dr. D. Francis Condie, Pennsylvania, Chairman; on American Medical Necrology, Dr. C. C. Cox, Maryland, Chairman; on Medical Education, Dr. J. C. Reeve, Ohio, Chairman; on Medical Literature, Dr. E. Warren, Maryland, Chairman; on Prize Essays, Dr. S. M. Bemiss, Louisiana, Chairman; on the Climatology and Epidemics of Maine, Drs. J. C. Weston; New Hampshire, P. A. Stackpole; Vermont, Henry Janes; Massachusetts, H. I. Bowditch; Rhode Island, C. W. Parsons; Connecticut, E. K. Hunt; New York, W. F. Thoma; New Jersey, Ezra M. Hunt; Pennsylvania, D. F. Condie; Maryland, O. S. Mahon; Georgia, Juriah Harris; Missouri, George Engleman; Alabama, R. F. Michel; Texas, T. J. Hurd; Illinois, R. C. Hamil; Indiana, J. F. Hibberd; District of Columbia, T. Antisell; Iowa, J. C. Hughes; Michigan, Abm. Sager; Ohio, T. L. Neal; California, F. W. Hatch; Tennessee, D. B. W. Avent; West Virginia, E. A. Hildreth; Minnesota, Samuel Willey; Virginia, W. O. Owen; Delaware, L. B. Bush; Arkansas, G. W. Lawrence; Mississippi, —— Compton; Louisiana, L. T. Pimm.

Secretaries of all medical organizations are requested to forward lists of their delegates as soon as elected, to the Permanent Secretary.

Any respectable physician who may desire to attend, but cannot do so as a delegate, may be made a *member by invitation*, upon the recommendation of the Committee of Arrangements. W. B. Atkinson.

It will be seen that there will be a large amount of business before the Association. The editor again appeals to all who can leave home to be present.

As many correspondents have asked whether the Craig microscope is reliable, the following testimony is published. The editor will have one of these instruments sent to any one, on the receipt of $2.75 for the proprietor. The advertising pages may be consulted for additional information on this subject:

"Washington, D. C., 1868.

"Dear Sir: I have just set aside the Craig Microscope which I purchased through you. I have been examining some cancer-cells, and the result is so satisfactory that I am now doing what I have desired to do many times before when using this little instrument, and that is, to express to you my gratitude for directing my attention to it. I keep it in my desk all the time, and find it invaluable. It very satisfactorily determines the character of the blood-globules, milk-globules, pus, and the various deposits of urine. It is, in fact, indispensable; and I only regret that I did not have it twenty years ago.

"Very respectfully, S. L. Loomis, M.D.,
"Professor of Chemistry and Toxicology, Medical Faculty, Georgetown College, D.C."

The Midnight Mission.—The second annual report of this Society has been received and read with pleasure and interest. The object of the Society is the reclamation of prostitutes; the Magdalens of New York city. This noble and divine work deserves the commendation and enjoys the fervent good wishes of all. So far, it has been a success. Excellent results have already been achieved and there is a surplus in the treasury. The heart of every good man and woman warms towards those *true philanthropists* who are working in this great field. Those who desire further information, in this connection, can obtain it, by addressing Mr. B. T. Rogers, 189 Fulton street, New York. Every city should have such a society.

Attention is called to the advertisement of Dr. W. Read. His instrument is fully as valuable as it is represented to be. The writer and his friends have used these nephogenes with benefit and entire satisfaction. Price $6 00.

Questions have been asked as to the propriety of a physician consulting with a homœopath. The answer is simple. Such an act is irreconcilably opposed to the code of ethics which physicians have pledged themselves to observe. To engage in such a consultation is a direct violation of this pledge. Apart from this simple and efficient reason, however, there are two objections additional, either of which should be sufficient to prevent such a course. Physicians believe that a homœopath is an advocate of an absurd, foolish, untenable and preposterous dogma, which, tried by the laws of reason, common sense and physics, is as baseless as the "fabric of a vision;" as transparently irrational as any of the modern superstitions which, like it, disturb the weak minded, or delude the credulous. How many homœopaths have we among the truly great men in general science? The physician believes that homœopathy is an injury to medical science; an ignis fatuus that scientific analysis has thoroughly exposed; a dangerous system (when honestly pursued) in acute and often in chronic diseases, and totally unworthy of intellectual recognition. To consult with a homœopath, under such conditions, is for a physician to falsify his pledges and scientific faith; to stultify himself in relation to all he has done, said and believed; to sustain and indorse a medical fiction; to give to empiricism professional, personal and social support. No one doing thus can justify himself, or stand justified before others. Lastly, a true homœopath cannot remain in charge of the sick, when there is called in consultation one whose practice he believes to be erroneous, dangerous, and fatal. For a homœopath to countenance such professional work, to endorse, by his presence and action, what he believes to be professional heresy and malpractice, is to make himself a party to wrong; an abettor and supporter of a dangerous evil; an endorser of what he believes to be spurious and counterfeit in medical currency. For a homœopath to be a party to a course of treatment which he says is dangerous, and even fatal, is criminal; but to do this for a consideration, to falsify his record, and to stultify himself, rather than withdraw and lose his fee, is monstrous. No one denies that many homœopaths are good men, worthy citizens, estimable gentlemen; but no one can deny that if physicians and homœopaths are honest in the faith advocated by each, that there can be between them no *identity* of opinions, no *compromise* of opinions, and, consequently, no honest consultation. Medical societies should not be afraid to meet honestly, fully and finally, the responsibilities devolving upon them, in this connection. It is clearly the duty of every such society to expunge from its roll of membership, the names of men who violate the admitted and recognized pledges voluntarily assumed by the society; and if a society is so recreant to its own record, to its professional faith, as to refuse thus to maintain its ethical integrity, those of its members who are willing to do what is right, should instantly withdraw from it. The voice of the profession demands such a course, and will fully sustain and commend it.

CLIFTON HALL.—The editor is but discharging a duty when he calls the attention of physicians to the advertisement of this admirable Institution. It is an asylum for the insane, where they have all the professional and general advantages of State Asylums, with the great privileges of privacy and absolute seclusion. It is not the purpose of the writer to examine the vexed question, as to the superiority of private over public asylums, or vice versa, but it can not be denied, that where advantages are equal, there is a natural desire on the part of those whose relatives require treatment to place them where, in addition to all the benefits derived from ordinary attendance, they can enjoy associations, rendering their incarceration less evident and repulsive.

Dr. R. A. Given, the proprietor of Clifton Hall, is a genial companion, an accomplished physician, and one thoroughly skilled in the specialty which he has selected. He is recommended warmly by a large number of physicians and other prominent gentlemen, both North and South; and there can be no doubt, that all patients entrusted to his care, will receive the closest personal and professional attention.

The editor having been confined by serious illness at Lexington, Kentucky, where he had gone to attend the meeting of the State Medical Association, is indebted to his friends, Professors Holloway and Owen, for supervising the publication of the first half of this number of the Journal. For a similar reason, the review and general editorial departments of this number have been prepared under physical trials, which will, it is hoped, be a sufficient explanation for their imperfect and unsatisfactory condition.

The resources of this Journal, in original and eclectic material, are increasing so rapidly, that the great difficulty experienced, each month, is in *reducing* the work to its present size. It would be far more easy and far more acceptable to the editor to double the size of each number.

While some American journals have, during the past year, been published on handsomely tinted paper, acceptable to the reader, and improving very materially the appearance of these works, this journal has made no change in this respect. The reason for not endeavoring to institute this improvement will be understood, when it is known that the journals mentioned have never presented any uniformity of tint, and that the different numbers, when placed together, for binding, present an unfortunate appearance. On account of this difficulty, publishers have been compelled to abandon such paper, and to return to the customary white paper, which, if not as attractive, has at least the merit and advantage of uniformity. The readers of this Journal shall enjoy all advantages that can be made permanent and reliable.

In the life of Dr. Caldwell it is stated that he reviewed Dr. Jackson's Principles of Medicine so sharply as to cause Dr. Jackson to "buy up and cancel" this edition of his work. The editor has been informed by Dr. Jackson that this is an error. The correction is made with pleasure.

Covington, Ky., February 9, 1869.

At a meeting of the Covington and Newport Medical Society, held this day at the residence of Dr. Pretlow, the death of Dr. Wm. Hays was announced.

Whereupon a committee, consisting of Drs. T. N. Wise, Henderson and Jessup, was appointed to draft resolutions, expressive of the sense of the Society in regard to the sad event. The committee reported the following:

Whereas, it has pleased Almighty God in the wise dispensation of His providence, to take from among us our friend and co-laborer, Dr. William Hays, in the morning of his professional usefulness; therefore

Resolved, That we proudly bear testimony to the calmness with which our friend met the rapid approach of the fell destroyer, Death; and we are beyond measure gratified in knowing that it found him all prepared.

Resolved, That we sincerely deplore the death of our friend, who had, with strong cords, bound himself to our hearts by a most consistent professional deportment and his many manly virtues.

Resolved, That in the death of Dr. Hays, the profession has lost one of its brilliant ornaments, and society a most useful member.

Resolved, That the Medical Society offers to the bereaved family of Dr. Hays our warmest and most heartfelt sympathy.

Resolved, That a copy of these resolutions be published in the city papers, Cincinnati Medical Journal, the Western Journal of Medicine, the Richmond and Louisville Medical Journal, and that a copy, also, be sent to the family of the deceased.

R. Pretlow, President.

J. S. Wise, Secretary.

NOTICES.

Post Office Decision.—Any person who takes a paper regularly from the postoffice, whether directed to his name or another, or whether he has subscribed or not, is responsible for the payment. If a person orders his paper discontinued, he must pay all arrearages, or the publisher may continue to send it until payment is made, and collect the whole amount, whether it is taken from the office or not. The courts have decided that refusing to take newspapers and periodicals from the postoffice, or removing and leaving them uncalled for, is prima facie evidence of intentional fraud.

The editor must, reluctantly, ask that those who correspond with him on business will enclose a stamp, for the reply necessary. This may seem somewhat penurious, but when it is stated, that the postage account of the Journal is now more than $200 00 a year, the necessity of the request will be apparent to every one. Letters with or without a stamp inclosed have always been answered, and will always be answered cheerfully, but attention to the request mentioned will save the editor from serious loss.

Mr. W. P. Holloway is the General Business Agent of this Journal and, as such, is fully authorized to negotiate any business connected with the work. His unwearying industry, his uniform efficiency aud his unchanging interest with the cheerful discharge of his arduous and complex labors, have contributed very much to the past and present success of the Journal.

BOOKS AND JOURNALS RECEIVED.

A Practical Treatise on the Disease of Women. By. T. Gaillard Thomas, M.D., Professor of Obstetrics and the Diseases of Women and Children in the College and Physicians and Surgeons, New York, etc. With two hundred and twenty-five illustrations. Second edition. Philadelphia, 1869, Henry C. Lea. From the publisher.

Forfty-fourth Annual Report of the Board of Managers and Superintendent of the Kentucky Eastern Lunatic Asylum, at Lexington, Ky., 1868.

On the Treatment of Paralysis by Electrization, with an explanation of a new Galvanic Apparatus. A. D. Rockwell, M.D. New York.

The Probe: Inquiry into the Use of Instruments and Narcotics. By Joseph Parrish, M.D.

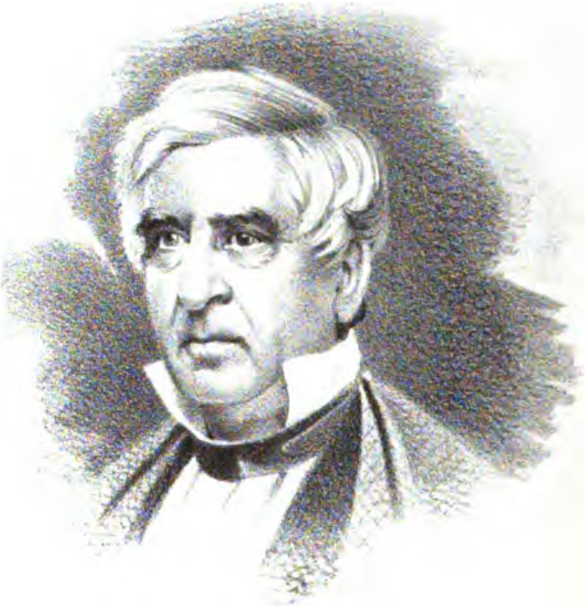
Report of Select Committee to whom was referred a Bill to prevent the Marriage of First Cousins. By Smith M. Hobbs, M.D., Frankfort, Ky.

Valedictory Address to the Graduating Class of the School of Medicine of the University of Maryland. By S. T. Wallis, Esq. March, 1868.

Remarks on Dr. Sayres' Paper, entitled "A New Operation for Artificial Hip-Joint, in Bony Anchylosis." By Louis Bauer, M.D., of Brooklyn. D. Appleton & Co., New York, 1868. From publishers.

Scirrhus: or Malignant Diseases of the Rectum. By Alden March, M.D. Albany, N. Y.: 1868.

The Intermarriage of Relations. By Nathan Allen, M.D. New York. D. Appleton & Co., 1869. From the author.



Z. Pilcher.

THE RICHMOND AND LOUISVILLE

MEDICAL JOURNAL.

VOL. VII. JUNE, 1869. No. 6.

ORIGINAL COMMUNICATIONS.

"Qui Docet Discit."

ART. I.—ON SOME FORMS OF CEREBRO-SPINAL DISEASE: INSANITY—FOLLOWED BY GRADUAL LOSS OF NERVOUS POWER—PARALYSIS AND DEATH—EPILEPSY—PARALYSIS PRODUCED BY THE ACTION OF MALARIA. An outline of clinical lecture delivered at the Charity Hospital. By JOSEPH JONES, M.D., Professor of Chemistry in the Medical Department of the University of Louisiana, New Orleans, and one of the Visiting Physicians of Charity Hospital.

After an examination of several cases of phthisis pulmonalis, accompanied by observations upon the pathology of tubercle, Dr. Jones directed the attention of the medical class to the great importance of the careful study of diseases of the nervous system.

The force of this recommendation is evident, when it is remembered that the nervous system is not only the centre and channel of sensation and motor impulses, conducting the motor influence of the will, to the muscles, receiving and transmitting to the cerebral ganglia sensitive impressions, from the exterior world, and balancing and coördinating the motions of the body, but is also intimately related to the acts of circulation and respiration and the nutrition and secretion of the organs.

If the statements of pathologists are to be credited, there is a steady and marked increase of diseases of the brain and nervous system; which appears to be referable to the excitements and vices of the present form of civilization. The ever restless ambition engendered by the enterprise and mental and physical activity of the present day, in the fierce struggle for wealth and preëminence, necessitates a constant wear and tear of body and mind, in this great and never-ending battle of *modern civilization*. At the present day, the brain is unduly strained and taxed, in the severe struggle for existence and for intellectual supremacy and professional emolument. At the South, the entire labor system, the growth of two centuries, has been overthrown; the richest have become the poorest and the poor have become poorer. Under such circumstances, it is not a matter of surprise that paralysis, insanity, and other nervous diseases, should be on the increase. And it is worthy of note, that the increase of these diseases, and especially of insanity and paralysis, has been observed chiefly amongst the colored race, who have been, to a great extent, deprived of the kind support and advice of their former friends.

The soldiers of the Confederate army, who endured the privations and toils of four years of unexampled war, have calmly met its reverses and quietly directed their energies to the most healthful and peaceful pursuits. In looking over the last reports of this great and noble Institution, we find that of the entire number of patients treated during the past year, from January 1, to December 31, 1868, viz: 4,981; about three fourths, or 3,422 were foreigners; and of the remaining number, 1,559, Louisiana furnished only 524, Virginia 88, Georgia 87, Florida 13, Alabama 52, Texas 30, North Carolina 23, South Carolina 28, Arkansas 5, Mississippi 62; so that the Middle, Western and Northern States furnished very nearly an equal number, viz: 717. The remark is applicable to all the large hospitals in Southern cities; they are not occupied by the native white population, and in those wards which are devoted to the treatment of female venereal diseases, there are one hundred foreign born women to each white native of the South.

The importance ot the study of diseases of the nervous system, is well illustrated by the force of imagination and the power of fear over the animal economy.

Schenckiers relates the instance of a noble Spaniard, Don Diego Osorio, who being in love with a young lady of the court, had prevailed with her for a private conference within the gardens of the king; but by the barking of a little dog their privacy was betrayed, the young gentleman was seized by the king's guard and imprisoned. It was capital punishment to be found in that place, and Osorio was condemned to die. He was so terrified at hearing this sentence, that one and the same night saw the same person young and old, being turned gray, as in those stricken in years. Moved at the sight, the gaoler related the incident to King Ferdinand as a prodigy, who thereupon pardoned him, saying he had been sufficiently punished for his faults. A similar circumstance is related of a nobleman of the Roman Court in the time of the Emperor Cæsar, who was also detected in an intrigue, cast into prison and sentenced to be decapitated on the morrow.

Under the influence of fear and fright, paralyzed muscles, and limbs that were useless, have suddenly been thrown into action, hæmorrhages have been instantaneously checked, and fits of the gout, ague and other disorders of a periodical character have been cured.

Anger accelerates the progress of the blood, hurrying on the circulation with such fearful impetuosity as to threaten the brain and the organs contained in the chest; grief depresses the action of the heart and causes serious accumulations in the larger vessels and lungs, and gradually undermines the health of the body, by weakening the energy of the nervous system and causing the functions to be carried on in a slow and unequal manner; even excessive joy has been known to occasion as strange and fatal results as anger and grief.

Fienus mentions an instance of a malefactor, who was carried out, as he conceived, to execution, and in order thereto his cap was pulled over his eyes and a cold wet cloth being stuck hastily about his neck, he fell down dead, under the conceit of his decapitation. A similar case is recorded by Chauon; a man having his eyes covered to be put to death, as he imagined (being condemned) and uncovering them again to receive his pardon, was found really dead on the scaffold. It is said, and the statement has been often repeated, that a person was directed to be bled to death; his eyes were blinded and he was made to believe, by water trickling down his arm, that the sentence was being carried into effect. The mimicry is said to have produced his death as effectually as would the real operation; the powers of life were destroyed by the power of imagination.

Sophocles, at an advanced age and in the full possession of his intellectual power, composed a tragedy, which was crowned with such success that he died through joy. Chilon, of Lacedemon, died from joy whilst embracing his son, who had borne away the prize at the olympic games. Juventius Thalma, to whom a triumph was decreed for subjugating Corsica, fell down dead at the foot of the altar at which he was offering up his thanksgiving; and, Fouquet, upon receiving the intelligence of Louis XIV. having restored him to liberty, fell down dead.

There are many other cases of sudden deaths from powerful emotions, and unexpected joys or sorrows are doubtless attributed to the effects produced by the nervous system upon the sanguiferous system. Dissection has shown that in a large proportion of such cases, the heart and large blood vessels are either structurally altered or engorged with blood; in some cases death is clearly referable to effusions upon the brain and especially at the base of this organ in the neighborbood of the origin of the respiratory nerves. Dr. Jones has, by numerous experiments upon living animals, demonstrated to the medical students of the University the sudden fatal effects of the arrest of the circulation and respiration, by destruction of the respiratory ganglia, and by the action of such poisons as hydrocyanic acid, which acts directly upon the medulla oblongata. The sudden withdrawal of the influence of the medulla oblongata during fright or excessive joy, may be also assigned as one cause of sudden death.

Numerous examples of the production of convulsions, hysteria, epilepsy, madness and idiocy have been recorded by various writers, as being produced directly and absolutely by fear and terror; but it will be sufficient for the illustration of this subject to record some instances illustrating the effects over disease of the imagination. Mr. Coleridge related the following anecdote of Dr. Paris:

As soon as the powers of nitrous oxide were discovered. Dr. Beddoes at once concluded that it must necessarily be a specific for paralysis; a patient was selected for trial, and the management of it was entrusted to Sir Humphrey Davy. Previous to the administration of the gas, he inserted a small pocket thermometer under the tongue of the patient, as he was accustomed to do upon such occasions, to ascertain the degree of animal temperature, with a view to future comparison. The paralytic man, wholly ignorant of the nature of the process to which he was to submit, but deeply impressed, from the representation of Dr. Beddoes, with the certainty of its success, no sooner felt the thermometer under his tongue than he concluded the *talisman* was in full operation, and in a burst of enthusiasm, declared that he already experienced the effects of its benign influence throughout his whole body; the opportunity was too tempting to be lost. Davy cast an intelligent glance at Coleridge, and desired his patient to renew his visit on the following day, when the same ceremony was performed, and repeated every succeeding day for a fortnight; the patient gradually improved during that period, when he was dismissed as cured, no other application having been used.

At the time that nitrous oxide excited almost universal attention, several persons were exceedingly anxious to breathe the gas, and Professor Woodhoun administered to them ten gallons of atmospheric air, in doses of from four to six quarts. Impressed with the idea that they were inhaling the nitrous oxide, quickness of the pulse, dizziness, vertigo, tinnitus aurium, difficulty of breathing, anxiety about the breast, a sensation, similar to that of swinging, faintness, weakness of the knees and nausea, which lasted from six to eight hours were produced; symptoms entirely caused by the breathing of common air under the influence of an excited imagination.

At the commencement of the present century, a man by the name of Perkins, introduced certain pieces of metal, called tractors, which it was contended, would cure certain diseases by merely drawing them over the affected parts. The extraordinary effects which were said to have been produced by their operation, were referred to galvanic, electric or magnetic influences. Dr. Haygarth resolved upon putting the metallic tractors to the test of experiment, and selecting five patients from the general hospital at Bath, he submitted them to the operation of a pair of false tractors, composed not of metal but of wood, yet so painted as to resemble the metallic ones in color. The patients thus selected had been ill several months, with various diseases of a chronic character, as gout and rheumatism. Upon the affected parts being stroked in the lightest manner by the pieces of wood, the patients all declared themselves relieved; three of them were practically benefited, and one immediately improved so much in his walking that he had great pleasure in exhibiting proofs of the benefit he had received. One said he felt a tingling sensation for two hours. Similar experiments with wood, slate pencil, tobacco pipes, etc., were made at the Bristol Infirmary, with the same results; and the fame attending these cures was so spread abroad that more patients crowded for relief than time could be afforded to bestow upon them. Men that were unable to lift their arms and legs were speedily restored to their use, after the application of the supposed metallic tractors.

Such examples explain the miraculous cures ascribed to empirical and inert remedies. It has been well said, "It is the confidence of the quack and the hope of the patient," which work the cure. Disease is well known to depress the powers of the understanding, as well as the vigor of the muscular system, and will also depress the judgment as well as the digestion. A sick person is, in particular, extremely credulous about the object of his hopes and fears. Whatever promises him health may easily obtain his confidence and he soon becomes the dupe of quacks and ignorant pretenders.

Dr. Reid has said that he who in the study or treatment of the human machinery, overlooks the intellectual parts of it, cannot but entertain very incorrect notions of its nature, and fall into gross and sometimes fatal blunders in the means which he adopts for its regulation or repair. Intellect is not important; but its actual power over the organized matter to which it is attached is much greater than is usually imagined. The anatomy of the mind, therefore, should be learnt, as well as that of the body; the study of its constitution in general, and its peculiarities, or what may be technically call idiosyncrasies, in any individual case, ought to be regarded as one of the most essential branches of medical education.

Plato says, "the office of the physician extends equally to the purification of the mind and body; to neglect the one is to expose the other to evident peril. It is not only the body that by its sound constitution strengthens the soul, but the well-regulated soul by its authoritative power maintains the body in perfect health."

Hippocrates admitted that that physician performed most cures in whom the patients placed the greatest reliance.

The first case of disease of the cerebro-spinal system, introduced into the amphitheatre of the Charity Hospital, by Dr. Joseph Jones, was, as far as the history could be gathered, of long standing, and the first symptoms of nervous derangement, were manifested in temporary insanity. The following are the main points of interest in this case:

John S. B., a native of Mississippi, aged 50 years; admitted to ward No. 28, bed No. 416, October 20th, 1868. Was in comfortable circumstances previous to the recent civil war; has a wife and family. Twelve years ago he attempted to take the life of his partner, without any known cause; and since this time has had occasional fits of temporary insanity, although he has continued in business. Three years after the attack on the life of his partner. he killed his horse, cutting its throat in the road and whilst harnessed in his buggy, without, as in the first case, any known reason for the outburst of passion. The patient is said to have continued in a wild delirious state for several days after these violent outbreaks of passion. During the war he lost his property, and at its close roamed about the country in a demented but harmless state. At the time of his entrance in the hospital he walked with great difficulty, spoke slowly and with effort, mind obtuse and patient gives no rational history of his past life, each time giving a new story. In attempting to walk about the wards, fell several times; motions feeble and unsteady, apparent want of coördination of the muscular motions; cannot turn, without help, in bed and requires assistance in dressing. Sensation apparently impaired. General appearance that of a large stout man, with full limbs, but in a low cachectic state, with pale sallow complexion. Passes his urine and fœces in bed at night. The powers continued gradually to fail, and with this progressive loss of muscular and nervous power, the circulation in the extremities appeared to grow more sluggish.

January 1, 1869. The patient has several large bed sores upon the hips, caused by pressure and the action of the involuntary discharges of urine.

The bed sores were dressed with a cerated compound of one drachm of crystallized carbolic acid, mixed with one ounce of simple cerate. The internal treatment consisted of one-twentieth of a grain of strychnine and fifteen drops of the tincture of the sesquichloride of iron, three times a day, together with the most nutritious diet afforded by the hospital.

Under this treatment, with attention to the state of the bowels, and to the personal cleanliness of the patient, with occasional blisters to the back of the neck, the general health improved in a marked manner; there was a temporary increase of muscular power; the patient became more cheerful, and rested better at night; and at the same time the effects of the iron were manifested in an improvement in the complexion. The bed sores also healed rapidly and fully. This improvement, however, was only temporary, and, in the early part of February, the difficulty of walking became so great, and the tendency to fall, even when sitting in a chair, so constant, that the patient was compelled to lie the most of the time in bed. Remains as usual, in a vacant, listless state. The powers have progressively failed up to the present time, February 19, when the patient lies in a state of mental vacuity, with mouth open and eyes staring, unable to answer the simplest question intelligently; with almost complete loss of muscular power in lower extremities, and with large bed sores forming upon the exposed parts of the trunk, notwithstanding every effort to prevent their appearance by friction and stimulating applications.

The students have had daily opportunity of witnessing the gradual and progressive failure of the intellect and muscular and nervous forces in this patient, in their visitations in the ward; the progressive loss of power was also clearly shown, in the fact that in December the patient was able, with supports on each side, to walk down from the third story of the hospital to the floor of the amphitheatre, on the first floor; in January it was necessary to bring the patient down, in the sitting posture, in a chair. At the present time he lies prostrate, unable to sit up.

It is worthy of note that, up to the present time, there has been no fever, no increase of respiration, or circulation, or of animal temperature, and the nutritive functions have been performed with regularity.

From the history of this case, we are justified in the conclusion that the disease of the brain has been of long standing; that the insanity was dependent upon some structural alteration of the brain; and that the alteration, degeneration, or softening of the brain, has gradually extended to and affected the spinal system. We have here a progressive failure of the intellectual, nervous and muscular forces, without any sudden paralysis or contraction of the muscles, and the only sudden and violent nervous agitation with which the patient was afflicted since his entrance into the hospital, was a slight convulsion about noon, on the 12th of February, after making unusual efforts in sitting up and attempting to walk. So far as could be learned, from a member of the medical class who had lived in the same village, this was the only attack of this kind that he had ever had, and we are led to exclude epilepsy, as the cause of the progressive failure of the intellectual and nervous powers.*

---

*Subsequent History of this Case.—The patient continued progressively to fail; lay in an unconscious condition, occasionally groaning and crying aloud, especially at night, when he disturbed the entire ward. One-fourth of a grain of morphine was tried at bed time without any special benefit. The patient does not reply when addressed and appears to be wholly unconscious of anything passing around him, and is oblivious to his distressing condition. Urine and fæces passed in bed; bed sore forming upon back, over sacrum; circulation sluggish; surface, in dependent portions, of a purplish red and mottled appearance; patient utterly unable to turn in bed or to move his lower extremities without help; when the legs are pinched, the patient contorts the face and evidently suffers pain.

The patient continued to sink, gradually lost the power of swallowing and could take no nourishment; breath became very offensive and the teeth loaded with sordes; four days before death the right thigh was contracted and drawn up toward the trunk; patient appeared to suffer pain when the attempt was made to straighten the limb. Died March 3d, 8 o'clock P. M. A careful autopsy was made the next morning at 8 A. M. Exterior full and not wasted; heart normal; lungs pale but perfectly healthy, with no deposits nor adhesions; alimentary canal and all the abdominal organs, liver, spleen and kidneys appeared to be healthy; head well formed and large cranium, with a symmetrical arch; nothing peculiar whatever was noted with reference to the conformation of the cranium; dura mater firmly adherent to the bony structure; pia mater greatly congested and thickened; the arachnoid was in like manner thickened and presented much more of an opalescent appearance than usual; brain large, well formed and unusually firm; the blood vessels of its nutritive membrane were everywhere larger, more numerous and more congested with blood than usual;

The second case was that of a stout young man, 26 years of age, afflicted with epilepsy. Bromide of potassium, in large and repeated doses, has been tried without avail; as much as three drachms (180 grains) had been administered just before a paroxysm, without perceptible effect. The lecturer had employed the bromide of potassium with marked benefit in some cases, whilst in others no beneficial effects could be perceived; recently, it had been employed in his wards with good effects in the treatment of delirium tremens. Milk punch and nutritious diet were also of great benefit in such cases, for the patients, as a general rule, had neglected their aliment. A mixture of tincture of assafœtida, extract of

---

this condition was in no manner connected with the mere stasis of blood, because it was as great in the most elevated portions of the brain, as in the most dependent; where cut, sections of the brain revealed a state of remarkable congestion; the congestion was greatest in the gray matter of the convolutions and of the optic thalami; the blood vessels of the septum lucidum and of the walls of the ventricles were enlarged, with numerous anastomoses and distended with blood; the blood vessels of the brain in all parts were far larger and more numerous and more congested than in healthy brain; the blood vessels were not only congested but they were permanently enlarged; the large size of the small blood vessels and even of the capillaries, imparted to the gray matter a pinkish tint; under the microscope the ganglionic cells of the gray matter and ganglia of the brain appeared to be diminished in number, whilst the capillaries were increased in size with thickened walls; exudative corpuscles were observed amongst the brain structures, and along especially the track of the blood vessels.

The pia mater of the spinal cord was congested in a similar manner; the spinal cord was covered all around by a network of large anastomosing (varicose) blood vessels, engorged with blood; the blood vessels appeared four-fold more numerous than in health. Upon section the blood vessels of the spinal cord in all parts were found to be similar to those of the cerebrum and cerebellum; they were greatly enlarged and congested with blood; the vessels were largest, most numerous and most congested in the gray matter (ganglionic central columns) of the interior of the cord; so marked was the enlargement of the blood vessels of the cord, and so great was the congestion of blood in them that the gray matter of the cord everywhere presented a bright red color, wholly different from the gray color of health; the cord was firm in texture; under the microscope the ganglionic cells appeared to be more numerous in the gray matter of the spinal cord than in that of the brain, and the capillaries were seen to be enlarged and their walls greatly thickened; exudation corpuscles were also seen in the neighborhood and around the capillaries, and both in the spinal cord and in the brain some fragments of the coloring matter of the blood was discovered. It is a question whether the insanity was caused by this congested and enlarged capillary circulation; the temporary nature of the fits, as well as their violence, would indicate that the primary lesion existed in the circulating apparatus of the brain and spinal cord.

valerian and acetate of ammonia, was also useful in delirium tremens.

Dr. Jones exhibited the brain, spinal cord and viscera of a young man who had just died suddenly in an epileptic fit; or rather the patient became comatose after the convulsions, and lay in an insensible state eighteen hours before death. The cerebrum was normal in its structure and appearance; the cerebellum, on the other hand, was atrophied, and the gray and white matter hardened. The gray matter of the cerebellum was greatly diminished in amount, and the hardening was of the most marked character. A large amount of serous fluid was effused below the dura mater and arachnoid membranes of the brain and spinal cord. The liver, spleen, and alimentary canal appeared to be healthy; but both kidneys were atrophied, being not more than one half the natural size, with numerous cysts containing light, yellow fluid, scattered over the surface and throughout the secreting structures; and the surface of the kidneys presented a granular appearance. Both kidneys presented a paler color, more nearly resembling that of fatty degeneration than the normal color.

The results of the autopsy in this case are interesting, for in the great proportion of the brains of epileptic patients that have been examined, the structure of that organ has been said to have been in all respects healthy; and this terrible disease has been regarded as merely functional, the particular seats of lesion not being determined. It must be admitted, however, that in some cases, the brain and its membranes have been found in every state of disease to which these parts are liable; the former being indurated or softened, the seat of various structural diseases, as abscess, cancer or tubercle, the latter being inflamed, thickened or ossified: and Wenzel has stated that the epileptic state has been invariably found associated with a morbid state of the *pituitary* body, in the *cella tursica.*

The occurrence of the epiliptic form of convulsion in this case, in connection with the marked pathological alterations and degenerations of the kidneys, appear to support the theory of this disease, proposed by Dr. Todd. He referred the peculiar features of epileptic seizures to the gradual accumulation of a morbid material in the blood, from the cessation or impairment of the depurative function of the kidneys, until it reaches such an amount as to operate upon the brain as it were, in an explosive manner, exciting a highly polarized state of the brain, or of certain parts of it, so that the nervous power is discharged upon certain other parts of the cerebro-spinal centre, in such a way as to give rise to the phenomena of fit. A connection has clearly been established between defective renal action, the presence of urea in the blood and epileptic convulsions; and, in the present case, the most rational explanation appears to be to refer the fatal convulsions in this case to the arrest of the climinative action of the kidneys. This case illustrates in a striking manner, the importance of a critical examination of the amount, character and chemical constitution of the urine, in each case of epilepsy. Such investigations should not be limited to the paroxysms, but should extend also to the free intervals.

With reference to the treatment of epilepsy, it is important that the physician should make minute inquiry into the condition of all the organs, functions and habits of the patient, and establish the treatment upon a correct diagnosis and general principle. Almost every potent agent in the materia medica has been recommended for the cure of epilepsy, and cases have been recorded sustaining these recommendations; but it will be found upon a careful study of the disease, that a certain per cent. of cases get well gradually and spontaneously without the use of drugs; in females the affection is sometimes connected with derangement of the menstrual function, and when that is regulated, the disease may disappear without further treatment; in males, masturbation and excessive venery may be causes of epilepsy, which are, to a certain extent controlable; some cases are clearly referable to gastric and intestinal irritations and derangements, which may be removed or greatly benefitted by treatment; whilst a certain proportion of cases are dependent upon structural alterations of the kidneys and upon both structural and functional derangements of the cerebro-spinal nervous system, and often march steadily on to insanity, idiocy or sudden death, uninfluenced by the most potent drugs.

Minute attention to the menstrual functions, to the moral and mental habits of the patients, to the state of the digestion and bowels, with rigid rules for diet, exercise and sleep, are all important. Amongst drugs, bromide of potassium does good in some cases, but, like all remedies in this affection, its action is uncertain, and many cases are wholly uninfluenced by it. Arsenic, nitrate of silver, atropia and iron deservedly hold the first place in the treatment of epilepsy, especially when combined with proper exercise of mind and body, change of climate, sea voyages and foreign travel.

The *fourth case* was that of a negro man, aged 45 years, a native of Louisiana, who had worked all his life on a sugar plantation, where he was often compelled to work in water and was subjected to the influence of the malarial poison.

Admitted to the Charity Hospital, January 8, 1869; patient states that he has suffered during his life with frequent attacks of malarial fever of the intermittent variety; last July, whilst working every day in deep water, often without eating anything until night, began to suffer with pains in different parts of his body, but more especially in the lower extremities; these pains grew worse from day to day and about Christmas he found that he had lost the power of using his legs, not being able to walk without great difficulty. During the summer and fall months the patient had suffered much with cephalalgia and intermittent fever; has never had syphilis; at the time of his admission suffered from constipation of the bowels, but the bowels were regulated under the use of strychnia, iron and aloes, magneto-electric shocks, seemed rather to increase than to benefit the loss of nervous power, and this agent was consequently abandoned.

The patient has been kept upon small doses of strychnine and iron, with benefit.

At the present time, the patient has but little use of the lower extremities, cannot raise himself from a sitting to a standing position, except by climbing, as it were, up the bed-post, raising nearly the whole weight by the muscles of the arms and shoulders; after getting to an erect position, cannot take a step without holding to a support; by the aid of two walking canes he can walk slowly across the floor by moving his feet about two inches at a time, dragging his toes along the floor.

Paralysis of the flexors of his legs; in his efforts to walk the feet appear to be raised by lifting the entire legs by means of the muscles attached to the hips; subsultus tendinum in left leg. General sensation and reflex action unimpaired; has failure of special senses; intellect as bright as usual in his race; digestion normal; thoracic and abdominal viscera in healthy condition.

In this case, the prolonged action of malaria, repeated attacks of intermittent fever, together with the depressing effects of working in water, knee deep, were attended with rheumatic pains, gradual loss of power in lower extremities, constipation, general asthenia, subsultus tendinum in legs, and inability to rise from the sitting posture. It is possible that the affection of the spinal cord may have been due to rheumatic inflammation of its membranes, as well as to the slow and prolonged action of malaria and other depressing agencies.

The history of the *fifth* case resembled in some respects that of the preceding; the subject being in like manner a negro man, (age 50 years,) who had been working during the last two years upon a rice plantation, his duties compelling him to stand in water above his knees. Previous to this occupation had been a healthy, stout man.

During the last spring, he began to suffer from "rheumatism in the left knee, which extended to left elbow and right knee and elbow, and the use of the extremities was gradually lost." The paralysis appears to have begun in the upper extremities; and the lower extremities was said to have been œdematous before being paralyzed. In the month of August the power of locomotion was lost and the patient became bed-ridden. The œdema of the lower extremities disappeared during rest; the rheumatic pains, however, have continued to harass the patient up to the present time, and the muscles of the extremities have gradually emaciated until they are now much reduced in size. Has had no trouble in defecation or urination.

At the present time skin warm and moist, temperature of axilla 90°.50; patient lies on his back; subsultus tendinum and pains in the shoulders, the former only occassionally, the latter persistent; paralysis of upper extremities, flexors of left arm partially contracted, paralysis of extensors of left arm more complete than in right; extensors of lower extremities unaffected, flexors paralyzed;

tongue slightly furred; appetite good; bowels regular; respiration regular; about 20 per minute; pulse 72, small.

The treatment consisted of iron and strychnine; and the patient has gradually improved since his entrance into the hospital, and the power over the voluntary muscles appears to be slowly returning.

As in the preceding case, this patient had been exposed to the action of malaria and to cold and wet in a low, unhealthy region; and in like manner the gradual loss of power in the extremities, was preceded and accompanied by rheumatic pains, which were more decided and attended with more marked local inflammation; in like manner there is asthenia, with no loss of sensation or of intelligence. It appears to be reasonable to refer the nervous derangements to the same causes in both cases.

The sixth and last case was that of a colored man, aged 63, a cooper by trade, who had been quartered in a low, damp locality, with poor diet, consisting chiefly of salt pork and bread; habits intemperate; has suffered for some months with pain in back, located chiefly in lumbar region. About one month ago was attacked with intermittent fever of tertian type; suffered with three paroxysms, and up to the present time has been subject to "light fevers at nights." Suffered with constipation of the bowels for two weeks from the first chill. Says that pains in the arms and knees came on about the time of the first chill, and they have gradually increased in intensity. During the last four weeks the patient has gradually lost power in the upper extremities.

February 6. The patient complains of sensations of cold in the arms, and keeps them wrapped up in flannel; pains in lower extremities in the back and lumbar region; some subsultus tendinum in the arms; paralysis of both arms and of the extensors of the forearms; want of full control of lower extremities; when walking, inclines his body forwards, and walks with an unsteady, swinging gait; complains of stiffness in the back, and of inability of standing erect; unable to rise from the sitting posture; unable to retain his water and fæces; involuntary micturition and defecation occurring, if he does not obey the calls of nature at once; arcus senilis present; some enlargement of the parotid gland on the right side; no loss of sensation; tongue moist, back coated with yellow fur, tip and edges clean and red; appetite good, bowels regular; slight cough, with bronchial expectoration; sounds of the heart feeble and not well defined; pulse soft, weak, irregular and intermittent, 84 to the minute. The patient was put on cod liver oil, strychnine and iron, with nutritious diet, and the arms rubbed with volatile liniment, combined with minute portions of strychnine. Patient continued to improve slowly, with an increase of power in the arms, and was able to get the left hand to his mouth in eating, until the 15th of February, when he had a chill, followed by fever. On the night of the 15th, the patient took ten grains of blue mass, which was followed with fifteen grains of the sulphate of quinia, on the 16th. The bowels were moved frequently, and the discharges passed involuntarily, and the patient appeared much exhausted; and in sleeping the left cheek appeared flaccid, and there was a puffing of the left buccinator during respiration. Stimulants and nutritious diet appeared to exert no beneficial effects, and the patient gradually sank and died on the 18th. Consciousness and intelligence were retained to the last moment. The post-mortem was performed three hours after death, and the viscera and brain and spinal cord exhibited to the medical class. Structures anæmic; heart pale, and apparently undergoing fatty degeneration. The degeneration appeared to be greatest in the muscular structures of the auricles. Under the microscope the fat globules were more abundant in many portions of the heart than in health, but the muscular fibres were generally healthy in appearance, and presented well marked striae; the oil globules were most abundant between the muscular fasciculi. Nothing abnormal was discovered in the valves of the heart and pulmonary arteries and aorta, and the feeble, irregular action of the heart, with its abnormal sounds during life, were clearly referable to the anæmic condition of the blood and to incipient fatty degeneration. All the cavities of the heart contained clots, firmly attached to the muscular columns and valvular cords. The right auricle was especially distended with an enormous clot, which distended its cavity, and which, when removed, presented a complete cast of its interior. These clots were composed of two portions: a well defined fibrous, light colored, dense, elastic portion, and coagulated blood. From their compressed and laminated structure, they had evidently been partly formed during the last hours of existence. The spleen was enlarged to twice the size, and slightly softened. The liver and alimentary canal appeared healthy; so also the kidneys. The affected muscles were exhibited, and presented a red, healthy appearance, quite different from that of muscles undergoing fatty degeneration or progressive atrophy, and Dr. Jones, after a careful microscopical examination, was unable to discover any marks of disease in those muscles even, which were most completely paralyzed. The entire brain and spinal cord were exposed and exhibited. To the naked eye no structural alteration could be discerned, and the microscopical examination, although carefully conducted, yielded only doubtful results, and notwithstanding these negative results, there existed, during life, paralysis of the arms and of the extensors of the forearms, and inability to rise from the sitting posture, and loss of power in the lower extremities, and want of control over the bladder and sphincter of the anus and rectum. Dr. Jones explained the great difficulty of such examinations, and how the very modes of hardening and making sections of the brain and spinal cord might lead to deceptive appearances and erroneous conclusions.

It would appear from the results of the autopsy in this case, that in the paralysis caused by malaria, we may not be able to detect any structural alteration of the cerebro-spinal system; the like absence of any well-marked lesion of the nervous structure being also characteristic of the paralysis of lead poisoning, of mercurial cachexia, and of the tetanus produced by wounds and strychnia.

The cerebral functions in the case, now under consideration, were unimpaired, and sensation and reflex action were intact; it appeared reasonable to refer the loss of power chiefly to some lesion of the motor ganglia of the spinal cord. And as the upper extremities were more affected than the lower, whilst the impulses of the will were unimpaired and sensitive, impressions were communicated with their usual intensity, it seems most reasonable to refer the lesion to some alteration, degeneration, or loss of power in the ganglionic cells of the anterior horns of the spinal cord, which may be considered as the origin of the anterior roots or motor nerves. Microscopical investigation was directed to the determination of the condition of these ganglionic cells of the anterior horns of the spinal cord; and whilst it appeared that they were diminished somewhat in numbers, at the same time such were the difficulties of a correct and absolute solution of this problem, that Dr. Jones conceived it as best to express the results of his microscopic investigation as doubtful.

ART. II.—A RETAINED FŒTUS. By R. H. TATUM, M.D., Chesterfield County, Virginia.

The long preservation of animal matter in closed cavities is often wonderful. Through the pages of obstetrical history, many interesting instances are to be found, of remarkable extra-uterine fœtal gestation, and a few, also, in the uterine cavity itself. The consideration of the various forms of extra-uterine fœtation are interesting of themselves and instructive, as throwing much light upon the process of conception. This physiological phenomenon is mentioned at an early period in the history of midwifery. In the Philosophical Transactions, and in the history of the Royal Academy of Sciences, many astonishing cases of extra-uterine fœtation are recorded. Instances in which they have remained in the abdomen for twenty, thirty, forty years; and Campbell mentions one that was retained fifty-five, the mother enjoying good health during the time, and dying at an advanced age of some other disease.

But one of the most remarkable of all the cases on record, is the one detailed in the Medico-Chirurgical Review, for 1834. It is there stated, that a woman was admitted to Cork-street Fever Hospital, Dublin; her abdomen was greatly enlarged. She informed them that eight years previous, she had been in labor, that the pains ceased, no child was born and no diminution of the abdomen. That since that time, she had conceived, gone her full time and borne three children. After her admission to the hospital, from some unknown cause, a fistulous orifice formed near the umbilicus through which the original child was taken, in the most wonderful preservation, and twenty-two inches long. Thus eight years after the full period of gestation, she was delivered of her first child. The self-protecting power of the human system is often wonderful.

Another interesting question has attracted somewhat the attention of the medical world—pregnancy, and the probable absorption of the fœtus. Dr. James Jones and the two Braithwaites give cases of gestation without any birth. In the case of Dr. Jones, the most important symptoms of pregnancy were manifested; the disappearance of the catamenia, enlargement of the abdomen and breast, and movement of the child. The case of the Braithwaites had the additional evidence of the pulsation of the fœtal heart. After the lapse of months, no child had been expelled in either case. What had become of the retained fœtus? Was it still in the womb or had it been absorbed?

The case of Dr. E. J. Fountain, of Davenport, Iowa, reported in the New York Journal of Medicine, may throw some light on this rather novel and interesting question of gestation. Dr. Fountain was consulted by a lady, who informed him that she became pregnant in the month of June. That the usual symptoms of pregnancy were present; the quickening of the child, etc. That she continued to be developed until the first of December. That at that period there seemed to be an arrest of development, and she gradually diminished in size until month of April of the following year, when becoming nervous and mystified in regard to her situation, Dr. Fountain was called to see her. On an examination he discovered a slight enlargement of the hypogastric region. There was increased size of the neck of the uterus, and increased weight of the body. The lady's history of her case, and his own examination made it a puzzle to him. Her health being good at the time, he determined to wait future developments. But in May, eleven months after the commencement of gestation, her anxiety increasing, and general health somewhat impaired, he resolved to bring on uterine action, to expell its contents whatever it might be. He injected a small quantity of aqueous solution of iodine and iodide of potassium. Uterine pains came on in an hour, and in a few hours the remains of a fœtus, the membranes and placenta were ejected, without a drop of blood. There was, however, a little while after, a slight flow of blood. The flesh of the fœtus had nearly disappeared, leaving some muscular tissue and the skeleton. It is a curious circumstance that this child should have been carried for eleven months, and five months of the time it was dead, without bringing on uterine contraction, and no fetor attending it. Dr. Fountain seemed satisfied that it was being absorbed.

Some months before meeting with this case of Dr. Fountain's, one of a similar character came under my observation. In the month of August, I was consulted by a lady in regard to her anomalous situation. She informed me that in the month of January previous, she became pregnant. Having all of the attending symptoms— cessation of the catamenia, nausea, enlargement of her person, etc. That in the following March, she suffered from a severe attack of sickness, attended with violent vomiting. That her health was soon entirely restored, and to her surprise, all further development was arrested. That it was a matter of great perplexity to her, and, as month after month wore on, it was shrouded in greater mystery. In the latter part of August, eight months after the beginning of gestation, my attention was called to her case. An examination revealed no tumor in the hypogastrium. On a further examination it was discovered that the uterus was above its normal size and weight, with the fundus falling anteriorly. It was as great a mystery to me as it was to her. I was of the opinion that the uterus was hypertrophied, and that she had been mistaken in the symptoms of pregnancy. Though she assured me there could be no mistake in her feelings in the early stage of gestation. Thus the matter rested here. I was still somewhat anxious about the future. But the mystery was destined soon to be cleared up. Two days after my examination, pains in the back and hypogastrium came on, the forerunner, as she then supposed, of the returning catamenia. But the pains continued to increase in severity and length, and in about twelve hours after their commencement, a fœtus of nearly three months was forced from the uterus, attended with a slight sanguineous discharge. After a lapse of some hours, and no placenta presenting, she was directed to remain quiet in bed. The case being surrounded with much mystery, and not progressing as usual, I consulted my very intelligent and experienced friend, Dr. J. G. Skelton, (formerly of Powhatan, but now of Richmond), in regard to the case. In his large experience in the practice of obstetrics, which has extended through a period of twenty-five years, the history of the case involved it in great obscurity to him. On a further examination, the placenta could just be touched through the os uteri, but it could not be gotten hold of, so as to be taken away. Acting under the advice of Dr. Skelton, the *secale cornutum* was administered, and in twenty minutes the placenta passed off, compressed to the size of a small orange. There was but little blood following it, not more than would be forced from the inner surface of the womb by its strong contraction. The lady recovered in a short time.

The action of the uterus was produced possibly by the examination, and the unusual carriage travel to which the lady had been subjected a few days before her accouchment.

The fœtus was of nearly three months' development, and had not the slightest odor. It was pale and emaciated, but in a good state of preservation. It showed the effect of lying in the waters so long.

The placenta was doubtless detached in the latter part of March, during the violent vomiting to which the mother was subjected in her illness, and the death of the fœtus immediately followed; and that it, with its appendages, remained in the uterus nearly five months after its death, without any unpleasant symptoms.

I do not concur with Dr. Fountain, that absorption would take place, for, in my humble judgment, this apparent absorption is not real, but the effect of the waters upon the tissues of the fœtus. For Dr. Fountain states, in the case which he has presented so clearly, that the fœtus was surrounded by "an opaque, yellowish fluid, of purulent consistence, but quite free from odor." This opaque liquid, in my opinion, is the result of the steeped tissues of the fœtus; and that is the most rational solution of its wasting. Could it have remained indefinitely in the uterine cavity?

ART. III.—A CALCULUS TAKEN FROM THE SUBMAXILLARY DUCT (OR DUCT OF WHARTON) NEAR WHERE IT EMPTIES AT THE SIDE OF THE FRŒNUM UNDER THE TONGUE. By JNO. B. ROBERTS, M.D., of Washington county, Ga.

A short time ago I was sent for to visit Mr. S., who resides about five miles from my office, and when I arrived, found him suffering with intense pain under the left side of the tongue. He informed me that he had then been suffering for three days; all the salivary glands and the tongue upon the left side swelling a little every day and the pain gradually increasing. Mr. S. is now 54 years of age, has always been very healthy and stout, his average weight being 225 pounds. He stated to me, that about twenty years ago, he was eating some mustard and got a small mustard seed under his tongue, which gave him such acute pain, in a few hours, that he sent for a physician. His physician came but failed to relieve him. The pain did not continue all the time, but he suffered at intervals intensely for several months, nearly always suffering more during mastication. He consulted a number of physicians, but all failed to give him permanent relief. The pain finally subsided, but he has felt a small lump there ever since, under his tongue, every year swelling and paining him a little whenever he took cold, and then subsiding with the cold. After being satisfied from the statement of Mr. S., my careful examination, the swollen condition of the tongue and salivary glands, and the hard lump that could be so easily felt with my thumb and finger, I decided that the pain was caused from some foreign body, and after giving a purgative I thought the quickest mode of relief would be to use the knife and remove the cause. But my patient objecting to that mode of treatment, and preferring that I should resort to some other. I then proceeded to apply nitrate of silver for six successive days, at the end of which time, I succeeded in removing a hard, light, yellow calculus, about the size of a goose-quill, three-eighths of an inch in length, seven-eighths of an inch in diameter at one end and one-eighth of an inch in diameter at the other. Mr. S. has felt no pain since. After cutting the calculus open, I found it very hard, in layers, and a small cavity in the centre, resembling very much the size and shape of a small mustard seed, but found no seed. I have the calculus now in my office, with the exception of a small portion that I had examined by C. U. Shepard, M.D., L.L.D., Professor of Chemistry of the Medical College of South Carolina, at Charleston, and will now give you his analysis.

The microscopic examination of a light yellow calculus from the submaxillary duct, furnished by Dr. John B. Roberts, of Georgia, afforded nothing beyond the determination of phosphate and carbonate of lime and some dark organic matter. The chemical examination of a fragment of 0.032 grammes in weight, (less than half a grain,) gave the following results: Phosphate of lime, 64.6 per cent.; carbonate of lime, about 6 per cent.; organic matter, salts and water, 30 per cent.

C. U. SHEPARD.

From the locality of the calculus, the length of time it has been forming and the strange circumstances connected with the history of the case, it has been thought worthy of a report.

ECLECTIC DEPARTMENT.

"Carpere et Collegere."

ART. I.—CLINICAL LECTURES ON THE TREATMENT OF HEART DISEASES. By Prof. OPPÖLZER, of Vienna, Austria. Translated and condensed for the Richmond and Louisville Medical Journal, by Dr. Epstein, of Cincinnati, Ohio. By special permission of the editor of Prof. Oppölzer's Lectures. (Advance sheets.)

Although the treatment of heart diseases does not result in their radical cure, still it is not altogether valueless; for it often relieves certain disturbances which those diseases produce in the system, and removes, or at least mitigates, many an unpleasant symptom. The treatment consists in, first, diet; and second, medication. As long as the compensating organs are able to equalize those disturbances of the circulation which are caused by cardiac lesions, diet without active medication will be sufficient; but where these compensating organs are inadequate to the task of relieving the circulatory apparatus, then active medication is demanded. The inclination to cough should be combated with the various narcotics and mucilaginous remedies. Care must be taken to obtain sufficient alvine evacuations. When there are evidences of strong hyperæmia of the brain and the lungs—headache dizziness, cyanosis, turgescence of the jugular veins, short breath, etc.,—then besides the derivation to the intestinal canal, the internal administration of digitalis, and cold applications to the head, and venesection, should be made in addition. In chronic pulmonary catarrh, we should endeavor, on the one hand, to reduce the copious secretion of the pulmonary mucous membrane, and, on the other hand, to promote expectoration. The proper remedies, therefore, in such cases, are the astringent balsams, expectorants, and emetics; hence, tannin, sal ammoniac, balsamus Peruvianus, (℞ balsam Peruv. i, syr. man. f℥ii., to be taken in teaspoonful doses;) further, scilla, polygala senega, sulphur auratum antimonie, and especially ipecacuanha in broken doses, (pulv. doveri) as an expectorant; or, when there is a great accumulation of mucus in the bronchia, an emetic in full dose, in which case, and for the sake of prompt action, some tart. em. may be added to the ipecac. (℞ pulv. rad. ipecac ℈ij., tart. em. gr. j; divide in doses equales No. duo. dose emetic.)

In many cases of asthmatic attacks, of a nervous nature, much benefit may be derived from narcotic and anti-spasmodic remedies. (Aqua laurocerasi, lobelia inflata, castoreum, aqua naphthæ, acet. morph., quin. sulph., nitras argenti,) sometimes, also, from various rubefacients, lukewarm hand or foot baths, with the addition of mustard, ashes, salt, etc., yet not too warm, so as to excite the heart to greater activity. If, however, it be found on examination, that the cause of the asthmatic attack lies in some anatomical disturbance, e. g. pneumonia, severe catarrh, pulmonary œdema, hydrothorax, etc., then the usual treatment for these diseases must be instituted, and in certain circumstances, the above mentioned anti-spasmodics may be combined with it. In the treatment of pneumonia in cardiac patients, digitalis plays the main part.

The various gastric and digestive complaints of those suffering from cardiac diseases, are usually conditioned upon sanguinary stasis in the province of the vena portæ, (plethora abdominalis.) To remove these evils, it is first of all necessary to regulate the diet, and attend to the alvine evacuations of the patient. The mineral waters of Kissingen, (Rakoczy, or the somewhat milder Pandur,) or of Marienbad, (Kreutzbrunnen, or the stronger Ferdinandsbrunnen,) have a very beneficial effect, in this respect, as they are lightly purgative, and thus promote the circulation in the portal system. To obviate the exciting effects of the great amount of carbonic acid, which these waters contain, upon the heart's action, it is best to let the bottle containing the water, stand uncorked, to evaporate, for some hours before using it, or to add common hot water or milk to the mineral water. Lighter complaints of the digestion, want of appetite and sluggish digestion, yield not infrequently to the use of simple bitters, (e. g. ℞. Aquae lauroc. drach. i, tinct. amarae sampulum i to ten drops half an hour before each meal, or a tea of herba centaur minoris, half a cup full in the forenoon,) or to a little magnesia or soda bicarbonica, (℞. sod. bicarb. scrupulum, ji to drachmam, ½; sach. albi. drachmam, i. Divide in doses æquales No. sex. Dose morning and evening one powder,) or again, to the moderate use of soda water. The gastric disturbances are, in some cases, however, attributable to general poor nutrition and to anæmia; here a tonic treatment is indicated; iron, alone or in combination with bitters, quinine, animal diet, etc.

It is not rare to find patients with cardiac lesion, suffer from catarrhal affection of the intestinal canal, and this, in consequence of stasis in the portal system. The purgative mineral waters, mentioned above, will do well here too, in curing the intestinal catarrh, except when profuse diarrhœa makes its appearance, when opium and astringant are indicated.

The liver deserves special attention in cardiac lesions. The mechanical hyperæmia which takes place, in such cases, in this organ, causea, on the one hand, more or less pain, and on the other, leads rapidly to a fatal termination of the patient, by the destruction of the hepatic capillaries, and consequent wasting of the hepatic tissue. If the pains are not too severe, it will be sufficient to keep the patient quiet, restrict his diet; special abstinence from spices, black coffee and spirits; friction, with warm oil and promoting the alvine evacuations. (℞. Aq. laxat. Vienn. uncias ij., or one or two glasses of bitterwasser, etc.) If the pains are too severe and the liver is sensitive to the touch, then local depletion must be superadded, five to ten leeches, which will afford prompt relief. As to the destruction of the hepatic capillaries in consequence of hyperæmia, the most that is to be hoped for, under these circumstances, is from a regulated diet, moderate exercise, and again from a regular course of the mineral waters of Marienbad, Franzensbad, Kissingen or Hamburg; the curative use of grapes, too, promises well, in such cases.

When, however, wasting of the hepatic substance has already taken place, then purgatives must be used very cautiously, lest the weakened patient be weakened still more. Hæmorrhoidal complaints are best removed, or at least alleviated, by mild purgatives; (cream tart., the bitterwaters of Püllna, Saidschütz, Ivanda, Friedrichshall, etc.) In hæmorrhoidal bleeding, the expectant treatment is the best, as long as the hæmorrhage is slight and the patient not anæmic. If it is profuse and the patient is anæmic, then you must use cold injections of alum, tannin or sesquichloratumferri, and, besides, elix. of vitriol, sec. corn., sulph. ferri, etc., by the mouth.

In albuminuria and morbus Brightii, use must be made, above all, of remedies, which, on the one hand regulate the circulation, and on the other, improve the nutrition. Here, therefore, digitalis, the preparations of iron and the bitters (amara) are proper. If the albumen increases, however, in the urine, on the administration of digitalis, or blood makes its appearance in the urine, then the drug must be stopped immediately. When the albuminuria is considerable, then astringents are used. (Tannin, alum, ratania; fer. sulph., fer. sesquichl., etc. As an empirical remedy against albuminuria, acidum nit. dil. is highly recommended. (℞. Ac. nit. dil., scrupulum, j; aq. æst., aucus ℥vj.; lqr. rub. id., unceam f℥ss ½. *m.* Dose, a tablespoonful every two hours.)

In profuse menorrhagia and metrorrhagia, rest is to be enjoined, and if this is not sufficient, then internally elix. vitriol, fer. sulph., ferri sesquichl., ergot, etc. (℞. Aq. dest., uncias vj., elix. ac. hal., gtts. xij—scrupulum, j; lqr. rub. id. unciam, ½, *m.* Dose. A tablespoonful every hour; or, ℞. Sulph. ferri, gr. vj., sach. albi. drachm, j. *m.* and divide in doses; lex. detur ad. chart cerat. Dose, three powders daily; or, ℞. Pulv. sec. corn, gr. vj—scrupulum j; sach. albi., drachm j—*m.* and divide in dose. sex. Dose, one every 2, 3 or 4 hours, according to necessity.) These remedies will usually suffice in such cases. But if the menses stop, or are very sparing, then the usual remedies, such as warm hip baths, cupping and leeches to the inside of the thighs, or the various emmenagogues, do not help usually to bring on the menses again, or even to increase the scanty flow. On the whole, one must be very careful in the administration of these remedies, as they may easily produce great harm. More is to be expected from the preparations of iron, in such cases, especially in the retention or scantiness depend upon anæmia.

In treating the various cerebral symptoms, which are apt to occur in the course of cardiac diseases, it is of prime importance, to investigate whether these symptoms arise from hyperæmia or anæmia of the brain. More especially, since either of these may give rise to the same symptoms, while their treatment must naturally be an opposite one. In this respect we have an important and unerring guide, in the examination of the vessels of the neck. If it be found that the jugulars are turgid and the carotids beating violently, or when even the carotids pulsate ordinarily, if only the jugulars are turgid, then the cerebral symptoms demand an antiphlogistic treatment; hence, absolute rest, great restriction in diet, cold application to the head, leeches to the temples or behind the ears, even a venesection, strong derivation to the bowels, cool drinks, (lemonade, tartaric acid, fruit juices, nitre,) and digitalis; and when the cerebral phenomena would lead to suspect an œdema of the brain, then, besides the above remedies, there must yet be added, cold affusions, iodide potassa and digitalis, in connection with diuretics. If, however, the jugular veins are collapsed and the carotid pulsations weak, then the symptoms must be dependent upon cerebral anæmia, caused by a reduced innervation of the heart, feeble contractions, and hence, a deficient *vis a tergo*. In such cases it is proper to combat the cerebral symptoms by a tonic and even exciting treatment; hence, iron, quinine, flores arnicol, rad. valer., rad. serpentariol and the preparations of ammonia, and under certain circumstances even narcotics, especially when insomnia, in conseqnence of cerebral anæmia, or great excitement of the patient, be present.

Against dropsy, it is sufficient, in the early stages, to keep the patient in bed, which will cause it to vanish. If this alone is not sufficient, then the heart's action must be reduced with acids, or fruit juices, or yet a little digitalis. At a later date, when the dropsy becomes more extensive, or already general, then the treatment must be either decidedly diuretic, or tonic, or both combined, according as the state of the patient demands. Thus, when the dropsy is extensive, and the nutrition of the patient has not suffered too much as yet, then the various diuretics are to be used: digitalis, acetate potassa, oxymel scillæ, juniper berries, ononis spinosa, fol. uvæ ursi, cream tart., sit. potassa. When, however, the patient is weak, and his nutrition low, then the indications are for quinine, Peruvian bark, easily digestible preparations of iron, (ferri carbonas, ferri lactas, ferri et iod. phos.) and with these also a nutritious diet. In this way we frequently succeed in removing the dropsy in weak patients, without any diuretics, the improved nutrition of the patient of itself being sufficient to bring on a natural diuresis. If this happy effect does not take place, then diuretics must be combined with the tonics. It is not advisable to try to remove the dropsy of a cardiac patient by means of exciting increased perspiration; for this can only be effected by an elevation of temperature, which such patients do not bear well, causing them palpitation, oppression, dizziness, etc. If, however, a diaphoretic treatment is to be pursued in such patients, then the lighter diaphoretics should be used; eg. pulv. doveri, warm lemonade, etc., and the transpiration should not be pressed to too high a degree. Neither is a purgative treatment advisable for the dropsy of cardiac patients. The hydræmic condition of the patient, under such circumstances, is always present; his strength is already reduced, and copious stools, which contain much of albumen and salts, would only increase the hydræmia, and reduce the patient still more. A purgative treatment is, therefore, in such cases excluded, except after every other method has failed, and the condition of the patient permits no operative procedure—paracentesis, or scarification of the skin—to diminish his sufferings, then purgatives may be resorted to, but even then with great caution. It is not rare that we are obliged to perform paracentesis abdominis, when the fluid has accumulated in the abdomen, so as to cause shortness of breath, and all other means fail to relieve it. Hydrops anasarca, likewise, frequently produces a very distressing tension of the skin. In such cases, friction with warm oil, or emolient ointments, to which ung. digitalis or ung. juniper has been added, have sometimes afforded relief. If, however, the tension is very great, then these frictions will fail, and scarifications of the skin must be resorted to, i.e., piercing the skin in several places with the point of a bistoury, 3 to 4 lines deep. These scarifications are performed, usually, on the lower extremities, where the tension of the skin is the most severe. But it may also be indicated, where though the tension is not so great, yet there is the presence of hydro-thorax or ascites, and from some cause or other no paracentesis can be performed. These scarifications, therefore, afford only a temporary relief from pain. Unfortunately, however, these scarifications are not unfrequently followed by erysipelas, and even gangrene, particularly where the cardiac lesion is complicated with morbus Brightü. Such an erysipelas must be combated with cold water, or aqua goulardi, with the addition of spiritus frumenti. (℞ aq. goul., lb. i, spiritus rectf. ℥i. Dose—to be cooled in ice before its application.) Gangrene must be treated according to surgical rules. Dropsy of the external genital organs, especially those ot the male, attain sometimes a collossal extent; the scrotum and penis swell so much, that they not only assume an altered shape, but also prevent the patient from urinating; nay, making it sometimes impossible. It sometimes happens, in such cases, that the catheter cannot be introduced, on account of the swollen prepuce hiding the glans completely, and not allowing of its retraction. Here we must resort to scarification of the foreskin, and if this is not enough, then dividing it with a bistoury. The œdema scroti must be treated, by placing a support under that part, or wearing a suspensory bandage. Cotton, also, strewn over with camphor, and the scrotum wrapped up in it, frequently does excellent service. If this also fails, then scarification of the scrotum must be resorted to.

ART. II.—PROGRESSIVE LOCOMOTOR ATAXIA, OR DUCHENNE'S DISEASE. By STANHOPE BRECKINRIDGE, M.D., Prof. of Materia Medica and Therapeutics, in the Louisville Medical College, Louisville, Ky. Read before the Medico-Chirurgical Society, Louisville, Nov., 1868.

The symptoms of this most interesting malady, as found described in Trousseau's clinical medicine, Victor Baziré's report of eight cases, and the article on this affection in Reynold's system of medicine, are briefly as follows, viz: *pain*, partial paralysis of the bladder, paralysis of some of the muscles regulating the movements of the eye-ball, a sense of constriction in different parts of the body, loss of cutaneous sensibility, and sometimes anæsthesia of the mucous membranes, and of the muscles and articular surfaces; and lastly, and most important of all, the loss of the power of coördinating muscular movements.

This latter symptom is so prominent that it has given the disease its name. When an ataxic patient attempts to walk, he staggers worse than a drunken man, and rolls from side to side in endeavoring to maintain his equilibrium; his legs fly out from under him, and jerk about with indescribable confusion, and unless he supports himself upon a cane, or other prop, he often falls to the ground. Before the affection reaches this advanced stage, the patient may walk alone, but in a jerky and very disordered manner, particularly when he first starts, and when he attempts to turn round. And yet this irregularity of gait is not dependent on paralysis of the cord, or weakness of the muscles, as was formerly supposed, for Dr. Duchenne (de Bologne) has demonstrated that the muscles retain all, or nearly all, their normal strength, and that the supposed paralytic is usually able to take his medical attendant upon his back and carry him across the ward, if he is allowed to guide himself by the arm of a friend. When these patients are sitting or lying down, it is often impossible to extend or to flex their limbs against their will, showing that their muscular strength is not impaired, but that they have simply lost the power of *coördinating* action.

This progressive irregularity of movement is preceded usually, though not always, by all or a part of the symptoms enumerated above. One of the earliest of these is *pain*, and pain of a peculiar and almost pathognomonic character. It comes in lightning-like flashes, and vanishes as quickly as it had come; or it may be of a *boring* nature, and confined to a circumscribed spot. Later in the course of the disease, these pains become continuous, and cause the most acute and unremitting anguish. Heretofore they have been mistaken for neuralgia—technically speaking—and neuralgic rheumatism, but Dr. Duchenne has shown that they are symptomatic of approaching ataxia.

Another early symptom is partial paralysis of the bladder. The fundus of the organ is first affected, but the sphincter may ultimately become involved.

In nearly half of Trousseau's fifty odd cases, there was spermatorrhœa. It, however, occurred in only one of Baziré's eight cases, and it is not supposed to have any intimate connection with the disease. In the early stage of ataxia, some of the patients possess the power of repeating the act of coitus with unexampled frequency, but they all generally become impotent as the malady grows worse. It was observed by Trousseau that men who possess this semblance of exaggerated virile power are often subject to spermatorrhœa.

The gradual or sudden appearance of strabismus is a common symptom as a prelude to the incoördination of muscular power. The strabismus may be either external or internal, and it may or may not be accompanied by diplopia or ptosis. These symptoms may pass away in a few days, or last for the remainder of the patient's life. The sense of constriction which the ataxic individual often feels is at times very distressing. The patient's shoes feel too tight, and his arms, or chest, or legs feel as as if they were girdled by a stout band.

One of the most serious of all the symptoms is the cutaneous anæsthesia, which often becomes more or less general, and involves the deep-seated tissues. When the loss of muscular and articular sensibility is added to the cutaneous anæsthesia, the patient cannot feel the resistance of the ground, and he must keep his eyes fixed upon his legs when he attempts to walk, or he will immediately fall. For some time after attention was first directed to this disease, the loss of sensibility was so uniformly observed, and was such a serious phenomenon, that some writers regarded it as the cause of incoördination of movements, but several cases have occurred in which the progressive locomotor ataxia was most distinctly marked, and yet in which there was a complete absence of impaired sensibility. As Trousseau remarks, these cases prove that cutaneous and muscular anæsthesia are only secondary pheuomena of the disease. It should be observed that the sensibility to *atmospheric changes* never becomes impaired.

The malady just described usually attacks persons between the ages of twenty and forty years, though it is occasionally seen far out of these limits. One case is reported at fifteen years and another at eighty, but these are very exceptional.

As far as statistics have yet been collected, females are much less liable to this disease than males, the proportion being about as 1 to 4 or 1 to 6.

Differential Diagnosis.—It is scarcely possible for one familiar with all the ordinary symptoms of locomotor ataxia to confound it with any other disease. It has, however, been mistaken for paraplegia, for it generally attacks the lower extremities first, and it may be accompanied by paralysis of the bladder and rectum. The characteristic pain of ataxia and unimpaired muscular power will readily distinguish it from this affection. Cases have been published in which tumours of the cerebellum produced a certain form of ataxia.

Trousseau quotes a case from Herard, (one of the celebrated authors of the latest and best French work on phthisis), in which the patient had lost the power of associating, combining and coördinating the movements necessary in locomotion, standing, etc. There was no paralysis of sensation or motion. This case resembled quite closely one of ataxia, but it was diagnosed "cerebellar tumour," on account of the very frequent vomiting which occurred, for this is a symptom, not only foreign to ataxia, but one which, on the authority of Hillairet, is common in cere-bellar diseases. There is very little danger of confounding this malady with other forms of paralysis, or with St. Vitus' dance.

Pathological Anatomy.—Post-mortem examinations generally reveal degeneration of the posterior columns of the spinal cord in the dorsal and lumbar regions, and of the roots of these columns. In a few cases the anterior and lateral columns have been found involved in the degenerative process, and Dr. Duchenne reports a case in which "the encephalon and spinal cord, on the most careful examination, presented no anatomical lesion appreciable by the naked eye." The morbid changes are described as consisting in "a kind of gray degeneration, and sometimes in a gelatiniform and translucent condition, in a diminution of consistency, or in a state of induration." In the majority of cases heretofore examined, the posterior columns have been found diminished in size, though in several instances they exceeded the normal volume.

Dr. Axenfeld gives the following resume of the microscopical appearances:

"In the *white matter* of the posterior columns, which has now become yellowish or gray, are seen scattered nerve-tubes, pale, shrunken, or varicose, sometimes reduced to their neurilemend only, or filled with granular contents, a few still retaining their cylinder axis. On the other hand, the connective transparent substance (the *neuroglia* of Virchow), the blastoderma in which these tubes are imbedded, has become fibrillated, and presents amidst a large quantity of amorphous granules, a smaller quantity of elongated nuclei, and a smaller one still of cells. Corpora amylacea, also, are met with in variable quantity, distinguishable by their usual reaction with tincture of iodine. Lastly, the blood-vessels are considerably developed, and their thickened walls, composed of several layers, are encrusted with a deposit of fatty granules.

In the posterior cornua of the *gray matter* the same alterations are found, but less markedly. The reddish tint of this part is due to the injection of its capillary network and occasionally its tint is darker, even blackish, owing to the presence of numerous granules of pigment. The nerve-tubes in these cornua are sometimes destroyed, and the nerve-cells altered in shape, although in general, both the tubes and cells are normal.

The changes noticed in the posterior roots are the same as those of the corresponding columns; and they are the same again in the diseased portions of the bulb, the pores, and the optic nerves.

On the whole, all these alterations clearly point to *atrophy* of the nervous tissue.

In a case of Trousseau's, the post mortem showed, among other lesions of the posterior columns, that the nerve-tubes had been mostly destroyed and that nothing was left of them but their sheaths.

And in another case (the examination being conducted by Mr. Sappey,) the posterior cords (in the lumbar region) were very considerably atrophied and the roots had lost two-thirds or three-fourths of their normal size. Their aspect was modified; they were not white, but of a reddish-gray color, looking like bundles of capillary blood-vessels. These lesions are in striking contradiction to what had been anticipated, for it is the accepted physiological belief (considered to be well demonstrated) that the *anterior* columns of the spinal cord control muscular motion.

When we reflect, however, on the true nature of this disease we see that there is no real *paralysis* in it, and consequently that the anterior columns aught not to be affected. The very fact that they remain healthy in many of the worst cases of locomotor ataxia is another argument going to prove that the trouble consists, not in a loss of muscular power, but in a lack of coördination.

This absence of coördinating power, as we remarked above, does not arise from cutaneous or deep insensibility, for several cases have been reported in which the sensibility was entirely normal. We have all been taught to regard the posterior columns as the ones which govern sensation, but it is very difficult for us to understand how sensibility should have remained intact when we see at the autopsy these columns more or less completely degenerated.

Indeed, the experiments of Brown Séquard, Türck, Philippeau and Vulpian, show that sensibility may remain normal, even after division and removal of a portion of the posterior columns. As Trousseau remarks, this obscurity is only an additional proof that physiology has not said its last word in regard to the functions of the spinal cord. That the posterior columns influence the *coördination of movements* we may feel pretty sure. The pathology of locomotor ataxia is a powerful argument in favor of this view, and the advocacy of it by such eminent physiologists as those jùst mentioned almost establishes it as a fact.

As to the nosological classification of this affection, all writers upon it are not agreed. While some consider it to be an idiopathic local disease, Trousseau maintained, till death, his first opinion, uttered years ago, that it belongs really to the class of neuroses. In other words, the question is whether the material lesions, the degeneration, etc., of the posterior columns, constitute the disease, or whether they are symptoms of it. There can scarcely be a doubt that the spinal lesions produce, in a large measure, the most striking sympton of the disease, the incoördination of movements, but it is urged that they do not account for other and important symptoms, such as pain, and perhaps, cutaneous insensibility. Again, it is true, that the characteristic lesions of the malady are not constant and uniform, for in a few cases where ataxia had been present for years, the post-mortem examination failed to reveal either to the naked eye or to the microscope, the slightest alteration of the posterior columns and roots. The following case is an example, viz:

A man, æt. 44 or 45, had, twelve years before, suffered from the characteristic pains of locomotoa ataxia. After three years they left, and were followed by paralysis of the third nerve on the left side, which persisted until death. Amblyopia followed next, ending in double amaurosis, with atrophy of the optic disc. Later, incoördination of movements supervened, and lastly, loss of sexual power. He finally died of small-pox, during the course of which he was attacked by general paralysis, of that kind which occurs in acute diseases, and which has been well described by Dr. Gubler.

Two weeks before his death, Dr. Duchenne examined the patient, and pronounced the case a typical one of locomotor ataxia. There was every reason to expect gelatiniform degeneration of the posterior columns and atrophy of the posterior roots, at the autopsy; but to the surprise of all, the most careful microscopical examination did not reveal these lesions. The *spinal cord* was *generally injected*, but this, it was thought would, at most, only account for the general paralysis which preceded death. The *optic nerves* had a gelatinous aspect, and under the microscope their tubes were seen to be atrophied; the notor oculi on the left side was slightly atrophied also. These were the only anatomical lesions found. Microscopical examination of the cord and its roots, made by Drs. Gubler, Luys, and Duchenne, detected no alteration in the posterior columns and roots. On the contrary, when Dr. Duchenne examined transverse sections of the *anterior* lumbar and cervical roots, he found that about one-third of their tubes had disappeared. (Trousseau's clinical lectures, page 179.) Cases like this—even though they be few in number—strengthen the position of those who claim that the post-mortem appearances are not the *cause*, but the *effect* of the disease.

Duchenne and Trousseau incline to the belief that the essence of the trouble in locomotor ataxia lies in the sympathetic nerve, but at present its origin and nature remain under a veil.

Nos. 957 and 959, of the London Medical Times and Gazette, of date October 31st and November 14th, 1868, contain papers on "diseases of the joints, connected with locomotor ataxia," by Dr. Benjamin Ball, Prof. Agrégé at the Paris Faculty of Medicine.

Eleven cases are reported of locomotor ataxia complicated with what he calls "arthritis," affecting respectively the knee, shoulder, and elbow joints. The articulating points swell—sometimes enormously; synovial fluid is poured out; the synovial tissues become more or less disorganized, and the bones rub against each other with a distinct crepitation. The osseous structure becomes absorbed, and the whole appearance of the articulating surface altered. Singularly enough, there is no accompanying *heat* or *pain*. This local manifestation of disease always occurs suddenly.

Dr. Ball's papers are not yet (December 19th) completed—or rather not yet all published—but he states that he "is prepared to demonstrate that the phenomena presented by these cases are due to an entirely different source from that of rheumatism, and that the symptoms, the progress, and the anatomical characteristics of spinal arthritis, as far as we are acquainted with them, are totally distinct from those attendant on *rheumatic* affections of the joints." We must wait and see—merely venturing the remark that it is very extraordinary that Trousseau and Duchenne, out of all their cases of locomotor ataxia, should have found none with this peculiar complication, while in the course of the last two or three years eleven cases are reported in the hospitals of Paris; extraordinary, we mean, if there is any real connection between these two diseases.

ART. III.—ALKALINE TREATMENT OF RHEUMATIC FEVER.

Dr. Henry W. Fuller, in an interesting paper in a recent No. (March, 1869) of The Practitioner, discusses the objections which have been made to the alkaline treatment of rheumatic fever, and gives the result of his own experience in that mode of treatment, and points out the causes of its failure in the hands of some. He states that he does not mean by the "alkaline treatment," "the administration of salines or small doses of the carbonate of potash every four hours; for, in my experience these remedies so administered exercise absolutely no control, in either shortening the duration of the disease, mitigating the patient's sufferings, or protecting his heart from mischief. Neither do I mean the administration, throughout the attack, of large doses of the alkalies, such as a drachm and a half or two drachms every four hours, for these remedies, so administered, would depress the patient, and might even produce dangerous consequences. Moreover, experience leads me to believe that they certainly would not tend to his recovery. By the "alkaline treatment," I mean a plan of treatment in which alkalies play an important part, but which consists not only in the administration of alkalies, but in the careful regulation of the secretions, the strictest attention to diet, and the administration of tonics, such as quinia and bark, as soon as the patient can bear them. Being convinced that as soon as the system is alkalinized, as shown by the alkalinity of the secretions, a great safeguard is obtained against inflammation of the heart, or of any of the then unaffected joints, my practice is to give not less than an ounce and a half of the alkaline carbonates, either alone or in combination with a vegetable acid, during the first twenty-four hours of treatment. They should be given largely diluted with water, either in effervescence or otherwise, as is most grateful to the patient. Sometimes the whole quantity of the alkali is ordered to be mixed with three imperial pints of water, and taken as a drink in the twenty-four hours—a form which is often very grateful to the patient—but more commonly two drachms are ordered to be taken in effervescence every three or four hours, in combination with an ounce of lemon-juice, or with half a drachm of citric acid dissolved in four ounces of water. At the same time, if the bowels are torpid, ten grains of colocynth and calomel pill are prescribed at bed-time. As soon as the urine, when freshly voided, ceases to show an acid reaction—which is usually the case after twenty-four hours—the quantity of the alkali is diminished by one-half, six drachms only being administered during the succeeding twenty-four hours. At the expiration of that time, if the urine remains alkaline, three drachms only are given in the next twenty-four hours; and on the fourth day, if the urine still shows an alkaline reaction, the form of the medicine is altogether changed. The treatment ceases to be essentially alkaline; either a cinchona draught is ordered to be taken three times a day, containing a scruple or a half a drachm of bicarbonate of potash—a little more or a little less, according to the condition of the urine, which should be kept nearly neutral—or three grains of quinia dissolved in lemon-juice are given three times a day in effervescence, with half a drachm of bicarbonate of potash or soda. Throughout the attack an aperient pill is given whenever it is needed, and opium is rarely, very rarely administered—never except under conditions of extreme nervous irritation. The diet is restricted to beef-tea or broth, with soda-water and milk and barley-water as a drink, as the smallest quantity of solid food, given a day before the tongue has thoroughly cleaned, is apt to induce a recrudescence of the disease. Wine and spirits are strictly forbidden, though experience has convinced me that wine and spirits prove less hurtful than the smallest quantity of solid food. If the patient is chilly, he is ordered to lie between the blankets; but, otherwise, he is allowed to lie between the sheets, and is kept tolerably cool. The heaping of extra blankets on the bed is strictly prohibited, as they tend to keep up excessive perspiration, and thus, by producing exhaustion, retard the patient's recovery.

The merits which I claim for this plan of treatment, which I have carried out both in hospital and private practice for twenty years, are: 1. That it affords very speedy relief to the patient's sufferings—relief far exceeding that produced by any opiate. 2. That it checks the rheumatic action, mitigates the severity of the disease, and promotes the speedy recovery of the patient. 3. That it protects the heart from mischief, and thus obviates one of the most distressing maladies to which flesh is heir.

In proof of these statements, I would adduce the following facts: 1. The patients very commonly doze, without the aid of opiates, within twenty-four hours after the first administration of the remedies, and almost invariably sleep tolerably soundly for an hour at a time within forty-eight hours after the commencement of treatment, showing how great is the relief afforded. Coincidently with the repose thus obtained, the temperature of the body falls—usually to the extent of two or three degrees within forty-eight hours, and not unfrequently to its natural standard within three or four days—the frequency of the pulse decreases by ten or fifteen beats, the quantity of the urine is largely augmented, and the pain in the joints is greatly lessened.

2. In many instances, within a week, and almost invariably within ten days from the commencement of treatment, the patient—who, on admission, was in an agony of pain with swollen joints, incapable of moving, and bathed in the profuse acid perspiration of rheumatic fever—becomes cool and free from pain, and anxious to leave his bed. In ninety-four consecutive cases, which were tabulated with a view to this inquiry, the average duration of the disorder, after the commencement of treatment, was only eleven days—in other words, the patient not only

reported himself free from pain, but *was up and dressed* at the expiration of eleven days. The hospital register of my cases tells a very similar tale, though the figures are necessarily somewhat different. Taking 116 consecutive cases of rheumatic fever which were admitted under my care into St. George's Hospital, between January 1, 1860, and December 30, 1865, and excluding twenty-eight in which pericarditis existed at the time of the patients' admission, the average term during which the patients remained in hospital was only 20.1 days; and as the patients are always kept in hospital for a week or ten days after the pains have ceased, in order to guard against a relapse, the average duration of the disease under treatment was only eleven or twelve days. These figures include all cases attended with endocardial murmur. Even including the twenty-eight cases of pericarditis, the average stay in hospital was only 22.2 days; a result, I believe, which has never been attained under any other plan of treatment.

3. I have submitted 439 cases of rheumatic fever to the alkaline treatment in hospital and private practice; the disease has not proved fatal in a single instance; in nine cases only, or in little more than 2 per cent., has any cardiac complication occurred while the patient was under my care, and in six of these, the murmur was discovered within twenty-four hours after the commencement of treatment, and, therefore, before the remedies could have taken effect; nay, it may even have existed in an incipient state, though it escaped detection when the patient was first seen. Dr. Dickinson's statistics are almost more striking, because they exhibit the contrast between the effects of the alkaline treatment, when properly carried out, and all other varieties of treatment, including alkalies in inadequate doses. While he was Medical Registrar at St. George's Hospital, he carefully noted all the cases of rheumatic fever admitted under the physicians, and during the space of five years there were admitted 161 patients whose hearts were sound at the date of admission. One hundred and thirteen of these cases were submitted to treatment other than alkaline, and in thirty-five of these, or in 30.8 per cent., the heart became involved; whereas the heart remained free from mischief in forty-seven out of the forty-eight cases which were submitted to the alkaline treatment—in other words, the heart was affected with little more than 2 per cent. [Vide The Lancet for January and February, 1869.]

Thus, then, it is obvious from statistics on a large scale, carefully collected by independent observers in the wards of St. George's Hospital, that the alkaline treatment, when properly carried out, not only affords speedy relief to the patient's suffering, but almost insures immunity from disease of the heart. It only remains for me to point out the causes which have led to the failure of this treatment in the hands of certain practitioners. In so doing, I give the result of clinical experience, both in hospital and private practice.

The first, and most common cause of failure, is the administration of insufficient doses of the alkalies in the early period of attack—of doses which, though they would be regarded as large under ordinary circumstances, are practically useless for the arrest of rheumatic fever. An ounce and a half is the minimum dose of an alkaline carbonate, which will suffice to overcome the acid condition of the system during the first twenty-four or forty-eight hours of treatment, and in sthenic cases two ounces are often needed. Four or five drachms, which form the maximum dose, administered daily by many persons who imagine that they are using alkalies efficiently, are simply useless. They neither mitigate the pain nor shorten its duration, nor do they protect the heart from mischief.

The second cause of failure is mistaken diagnosis, and the consequent administration of alkalies in cases in which they do not exercise a curative influence. It constantly occurs to me to see persons, who have been drenched for a week or ten days with alkalies, under the impression that they were afflicted with acute rheumatism, who, on investigation, prove to be suffering from acute osteo-arthritis, or so-called rheumatic gout, from gonorrhœal rheumatism, or from atonic gout—disorders which, though resembling rheumatic fever in many of their features, are yet totally distinct from it in their essential character, and require an entirely different plan of treatment. Indeed, in most of these cases, full doses of the alkalies prove absolutely noxious; they depress the patient, and fail altogether to relieve his symptoms.

The third cause of failure is an improper alimentation. The diet should be restricted to broth, beef-tea, or other liquids; all solid food being strictly prohibited; but, in many instances, I find that little heed is paid to this matter, and that throughout the attack the patient is permitted to take whatever nourishment his appetite will enable him to swallow. Yet there is nothing of which experience has more fully convinced me than that the strictest dietary is of the utmost importance—of infinitely greater importance than in gout—and that the taking of solid food, such as fish or meat, however small the quantity, will serve to keep up imperfect assimilation, and not only counteract the effects of remedies, but almost indefinitely protract the disease. The desire for solid food returns long before the power to digest it, and so it happens that a piece of meat taken a day before the tongue has cleaned, and the stomach is in a condition to digest it, proves not unfrequently the cause of a relapse.

These, then, are the principal causes of the failure of the alkaline treatment in the hands of certain practitioners. But there are several minor causes of failure, which serve to swell the chorus of those who maintain that alkalies are of no real service. Thus, I frequently find that no heed is paid to the state of the secretions, and that although the liver is sluggish, and the bowels disordered, no steps are taken to rectify the derangement; or the alkalies are pushed beyond the exigencies of the case, so that intense alkalescence of the urine is kept up at a time when the patient ought to have been taking bark or quinia—a mistake which leads to great depression of the system; or, lastly, the alkalies are perseveringly pushed in the exceptional cases in which they produce diarrhœa and run off by the bowels—cases in which no alkaline action can be induced, and in which some other treatment ought to be resorted to.—[*Am. Med. Jour. Sci.*

ART. IV.—ADDITION TO HISTOLOGY OF THE BLOOD-VESSELS. By C. J. EBERTH, M.D. Translated from "Virchow's Archiv. By FRED. C. LEBER, M.D., Louisville, Ky.

In a former work I have instituted a comparison between the blood-vessels of vertebrate and invertebrate animals in relation to their finer structure. I there arrived at the conclusion, that in the higher invertebrată, the blood-vessels, as well as the blood spaces, possess a separate coating, in part of self-dependent cells, and also in part reciprocally agglutinated cells, and that but few organs as the heart of the cephalophores and samellibranchies and the blood spaces of the lung of the snail, want a proper "endothel" or sputhehoe lung, or one to be demonstrated out of the residue of such an existing "structure."

Since these observations I have been very particular to seek after similar conditions amongst the class of mammalia and man, and have made it my object to make those organs of the body the subject of my investigations which, in relation to the structure of their capillaries, have heretofore received but little attention. The organs that at present will engage our attention are the spleen, suprarenal capsules, placenta and liver. So far as the spleen of mammalia is concerned, I have, as well by injection of nitrate of silver into the blood-vessels under a not too heavy pressure, as by imbibition of fine cuts with this reagent confirmed the relations, as described by Wilh. Müller, of intermediate wall-less blood spaces. The capillaries of the supra-renal capsules of which Henle observes, that they seemed to possess no proper walls, repeat wholly the structure of the remaining finer capillary blood-vessels and are formed out of a membrane consisting of short unnucleated spindle-shaped cells, which is undoubtedly often intimately blended with the surrounding tissues. The vessels of the circumference of the placenta of which Bidder affirms, that they possess no epithelium, do not differ in their structure from other blood-vessels. Nitrate of silver producing in the julima lining everywhere, as in other veins, a continuous "epithelium of beautiful unnucleated spindle cells under which lie the rounded, and through mutual pressure often flattened, cells of the decidua, which, without previous treatment, with nitrate of silver, certainly represents an epithelium" though hardly a continuous one.

A special exception seems to be obtained in the liver of the mammalia as well as in the amphibia in some parts of the capillary district, the cellular structure of the capillary wall becomes destroyed by the blending of the cells, in which, however, the nuclei of the original cells remain. In mammalia and in frogs it is owing to the great narrowness of the capillaries and their meshes, in which it is far more difficult to discover their relationship than on the strong capillaries of the salamanders with their wide meshes. While at the transition of places between capillaries and veins after the method with nitrate of silver, the wall can with ease be resolved into its separate spindle cells, you will find that in the capillaries proper besides the irregular, somewhat broad spindle cells, some with interrupted contours, and the limits of the same often only indicated by minute lines and fine points. I have made the observation constantly, and too often and under similar methods of treatment, so that I cannot trace it back to mere chance or careless method of investigation.

ANALYTICAL DEPARTMENT.

"Qui e nuce nucleum esse vult, frangit nucem."—PLAUTUS.

ART. I.—ANALYSIS OF VARIOUS ARTICLES. Published in the Medical Times and Gazette, the British Medical Journal and the London Lancet. (Original copies.) By Prof. JAMES M. HOLLOWAY, Associate Editor.

The editor in the Lancet, April 9, 1869, concludes an editorial on the subject of vivisections, with the following paragraph:

"We hold that, for mere purposes of curiosity, or to exhibit to a class what may be rendered equally,, if not more, intelligible by diagrams, or may be ascertained by anatomical investigation or induction, vivisection is wholly indefehsible, and is alike alien to the feelings and humanity of the christian, the gentleman, and the physician.

Dr. Charles T. Thompson, M. R. C. P., of St. George's road, England, attaches great importance to the complete warm bath in the treatment of scarlet fever. During an experience of fifteen years, having attended many cases, he has not a single death to record.

By the judicious employment of the warm bath, the the usual sequelæ of this disease are prevented, the dangerous infection is greatly diminished, and the patient is restored earlier to the family and society.

Upon the first access of the fever, the patient is placed in a warm bath, which is to be repeated as often as the "strength of the patient will allow, or the severity of the attack may require." After each bath, the body of the patient should be dried by soft cloths large enough to envelope the whole body; the body being "dabbed," rather than rubbed dry.

By this plan, severe cases are speedily reduced to mild ones, the fever rapidly subsides, and the internal organs are relieved from the usual disturbances.

"Of course the necessary medicines must be administered as occasion requires."

Edward Calthrop, L. R. C. P., presents in the Lancet, April 6, 1869, a hitherto unpublished means for diagnosticating accidental hæmorrhage from placenta prævia.

In placenta prævia, the discharge of blood is pure, and the vagina, upon examination, is very likely full of clots.

In accidental hæmorrhage, the discharge is liquor sanguinis, and the vagina is free from clots.

In the former instance the blood comes directly from the uterine or placental vessels, and is therefore capable of coagulation after reaching the vagina.

In the latter instance the blood has to find its way out through the os, by separating the membranes, and, in consequence, the fibrin is deposited within the uterus or the cervix; therefore, coagulation cannot occur in the vagina.

He has frequently seen a mass of fibrin deposited upon and coming away with the membranes at full term, in cases in which accidental hæmorrhage had occurred before gestation was complete.

W. St. John Coleman, L. R. C. P., employs carbolic acid in the treatment of chronic eczema, with success, after other remedies have failed.

The following mixture is preferred: Carbolic acid, 20 to 40 drops; glycerine and water, each 4 ounces. To be applied freely twice daily.

In an editorial in the London Lancet, Dr. Rumsey, of Cheltenham, is cited as the highest authority on the duties of a medical witness in court.

Recently, in a suit against Mr. Sims Reeves for failing to fill an engagement, Dr. Rumsey testified as to the condition of the vocalist on the day he was expected to sing. Dr. R. stated simply the facts observed by him.

In answer to a question by Mr. Gough, the attorney, the Doctor said, "I am here to give evidence as to facts, not to state opinions."

The Lancet continues: "A subpœna does not require a witness to state opinions. Medical practitioners who are so unfortunate as to be mixed up with the parties to a law-suit, cannot too well remember that any evidence they give may, if it so please them, be strictly limited to a narration of facts observed."

Mr. N. Adams, of Lymington, in a letter to the Times and Gazette, reports his third case of funis presentation, treated successfully by Prof. Dyce's method.

Upon examination, found the membranes ruptured and a coil of the cord protruding. The fœtal head had not yet descended into the pelvis. The patient was placed on her hands and knees, and by pushing the cord backwards for half an hour, it was finally lodged above the head, and the labor terminated successfully both to mother and child. Is not this Thomas's method?

Dr. Greenhow, before the Clinical Society of London, February 26, 1869, reported two cases of traumatic tetanus, treated by the calabar bean in larger doses than had been hitherto given, viz: "three grains of the extract every two hours, and as much as four and a half grains in a single dose." One case recovered; the other, which was of a more acute character, died on the fourth day of the seizure.

At the same meeting, Dr. Bryant, cited one fatal case, in which he thought death was due to the bean.

Mr. Maunder had failed in two cases with this remedy, but had derived benefit from opium.

CLINICAL RECORDS.

"Ex Principiis, nascitur probabilitas: ex factis, vero veritas."

ART. I.—THIRTY SURGICAL CASES TREATED WITH CARBOLIC ACID AS A DRESSING. By DAVID W. YANDELL, M. D., formerly Professor of Science and Art of Medicine, University of Louisville, Ky.

I purpose briefly to state my experience in the use of carbolic acid in certain surgical affections, which have come under my care in the last eighteen months:

Case 1. I saw this case, in consultation with Dr. Coleman Rogers. It was one of enormous abscess of the liver, in the person of a young man who had contracted dysentery, while in a Northern prison during the late war. The abscess had evidently existed for many months. Adhesions had clearly formed between the liver and the abdominal walls. I drew off eleven quarts of grumous and odorless pus, by means of a trocar and canula, and dressed the wound with the carbolic oil and carbolic putty of Mr. Lister. The patient got a toddy and an opiate, and had a good night. The oil and putty were continuously applied. On the third day the opening had closed without visible suppuration. Within ten days, the abscess having refilled, was again evacuated, and one ounce of the tincture of iodine was thrown into the cavity. At the end of five days the wound had healed, again without suppuration. For a week the patient was hopeful, and we allowed ourselves to think that perhaps the abscess would not refill. In a short time, however, the side again began to bulge, and within another fortnight the tumor was emptied the third time. The iodine injection was repeated. The puncture quickly closed, but suppurated somewhat before doing so. In a few weeks after, the patient died. No post-mortem.

Case 2. A boy, aged six, while playing with a nine-bladed straw-cutter, had his right hand cut into thirty or forty pieces. I removed the mutilated mass, got a flap from the under surface of the forearm, sawed off the extremities of the ulna and radius, arrested hæmorrhage by torsion, washed the wound with carbolic acid, secured the edges by silver wire and plaster, and covered the parts with cloths saturated with carbolic lotion. The outer dressings were not changed for a week. The original rag was allowed to remain four days longer. When removed, union was complete. If there was any suppuration, it was not discovered.

Case 3. M., a stout machinist, had three of his fingers fractured and torn by a roller. I dressed them with splints and carbolic lotion. The application allayed the pain, and, while speedy union was impossible, but little pus or discharge of any kind was observable, and a good cure of the soft parts was accomplished in two weeks.

Case 4. A professional friend had his hand caught in a straw-cutter. The bones of the index and middle fingers were found to be cut through, and the soft parts on the dorsum much torn. When I saw him an hour after the accident, he was suffering great pain. I adjusted things as well as I could, and covered the wound, which which looked ugly, with carbolic putty, applied directly to the parts. The pain ceased instantly, and he had a good night, without drugs. .The dressings were changed on the third day. The case progressed smoothly, with, at no time, enough suppuration to soil the rag.

Case 5. M., a mechanic, had his hand terribly lacerated by a circular saw. Three hours after the accident, he was frantic with pain, and in a state of extreme anxiety about lock-jaw. I removed such portions of the member as were plainly lost, and dressed the remainder with carbolic lotion. He grew easy in five minutes. A small opiate gave him sleep. He awoke tranquil. The lint next the wound was not removed for twelve days. The parts healed by granulation. The amount of pus discharged was noticeably small.

Case 6. McH., a robust railroad employe, leaped from a train while in motion, and got a wrench of his right ankle. The inflammation which ensued produced an abscess of the entire dorsum of the foot. This was opened, carbolized, and enveloped in carbolic lotion. Pus drained away in gradually diminishing quantities for five days, when all discharge ceased, and on examination the abscess was found closed and the tissues healthy.

Cases 7 *to* 12 were all of incised wounds of sufficient size to require sutures. They all had primary union under wire, collodion, gauze, carbolic putty or carbolic lotion.

Case 13. R., a smart Confederate soldier, got a minnie ball in his right shoulder, in 1864. The scapula had been extensively shattered. A fistulous opening remained midway the supra-spinous fossa, the discharge from which was so copious and fetid as to render his life miserable. I carbolized the wound, and filled it with carbolized sponge. The fetor was quickly lessened. In a few days the opening was sufficiently large to allow of my removing, with forceps, several pieces of necrosed bone. The wound was now packed with carbolized lint. The fetor disappeared, the discharge ceased, and the cure was soon complete.

Case 14. Mrs. O. F., æt. forty years, had on the inner surface of the arm, beginning immediately above the elbow, a number of fistulous openings and sinuses, communicating one with another, and leading, here and there, to the humerus. The discharge from them was copious, often purulent, sometimes offensive. The limb was enlarged and boggy. The disease was syphilitic. It was of many years' duration. Such sinuses as were explored terminated on carious bone. Small bits of bone had often come away. Some of the more superficial sinuses were laid open. The remainder were repeatedly carbolized by injecting the lotion. Carbolic putty was applied, the air excluded as completely as possible, and the patient ordered iodide of potassium and iron. In five weeks the parts were healed. The arm had returned to almost its natural size. The induration, purple hue, etc., had greatly diminished. There was no sensitiveness to pressure. One of two things had, I think, happened: *Either the carious bone had been absorbed, or healing of the soft parts effected in spite of and over the caries.*

Case 15. T., æt. fourteen, I saw first in 1867, in consultation with Dr. Coleman Rogers. He had extensive disease of the right hip joint, attended with hectic, emaciation, suppuration, etc. One of Sayre's splints was put on him, and he made satisfactory improvement. In the spring of 1868, he rode some distance in a wagon without springs, and took, besides, considerable exercise on foot. The joint trouble was rekindled, and proceeded quickly to extensive suppuration, the matter burrowing under the superficial tissues of the thigh, and finding vent midway the limb. There was considerable swelling, exquisite tenderness, and such nocturnal pain as to make opium indispensable. Hectic, night sweats, etc., again set in. The constitutional disturbance was excessive. The patient could lie in but one position, and every movement of his limb was torture. The discharge was copious and extremely offensive.

The same general remedies which had been given in his former attack, were repeated. Locally, the abscess was syringed daily with carbolic lotion, and the opening kept constantly carbolized. Almost instantly after syringing the abscess, the patient—a marvel of uncomplaining courage—would suffer violent frontal headache, which would last from ten to twenty minutes. The strength of the lotion—one to sixteen—was reduced to one to thirty-two. The headache was less severe. When the lotion was still farther weakened, the headache was no longer produced. Improvement in the parts began at once. The fetor disappeared. The discharge soon became less purulent, thinner, and diminished in quantity. At the end of a month it was trifling in quantity, and serous. Swelling, tenderness and pain ceased. The walls of the abscess seemed to have agglutinated together. The injections were no longer practicable. The change in the general health of the patient was equally marked. The splint was resumed, and now, eight months after, the cure seems to be perfect.

Case 16. H., æt. ten years, was sent to me from the the lower part of the State to be treated for hip-joint disease. She came here on a steamboat from which, because of her wretched condition, she was not removed. Sleep was a stranger to the little sufferer. Her moans when at rest and her screams when disturbed were piteous. She was a skeleton. Several fistulous openings existed about the joint, both on its inner and outer aspect. A large accumulation of matter lay on the inner side of the thigh, and huge quantities of pus escaped daily from the openings. The general condition of the patient was that which is usual in such cases. Examined under chloroform, all the bones concerned in the articulation appeared carious. Such of the sinuses as were superficial and could conveniently be slit up were divided. The abscess was opened, and along with the remaining sinuses was injected with weak carbolic lotion. The entire parts were then covered with carbolic putty. When the patient recovered from the anæsthesia, she got a full opiate and had a good night. The dressings were changed next day. A large quantity of discharge had escaped. The nurse considered the patient more comfortable than she had been for many weeks. She passed the day without opium, but required it when night came on. A weak carbolic lotion was directed to be injected daily into the parts and the lotion and putty kept constantly applied. She was put on cod oil, iron, etc., and returned home. In ten days the following is the account received of her: "She now has good nights without drugs and shows some appetite. The fever is going, the sweats are gone; the swelling is subsiding; the discharge is less copious and thinner." In two months this report is sent me: "Every sore had healed a week ago but one, and that was a small affair, which discharged only a few drops of yellow water a day. That has now closed, and except that the hip is still enlarged and somewhat tender on hard pressure, the cure, so far as suppurative action is concerned, seems complete. The improvement in the general health of the child has kept pace with that of the joint. She has come to look quite up to the average of scrofulous subjects. Most of her time is spent out of doors, being wheeled about in her carriage." I think, if I had seen this case two years ago, I should have excised the head of the femur.

Case 17. P., æt. 28 years, was a sufferer from disease of the hip joint for many years. The head of the femur rested on the dorsum of the ilium. The limb was proportionally shortened. Five fistulous openings which furnished considerable discharge, occupied the neighborhood of the joint. When explored, they revealed all extensively carious condition of the neck and great trochanter of the femur and the upper rim of the acetabulum.

Walking was painful to him; his pulse was habitually over ninety. His general condition was nevertheless reasonably good. Having had many outbreaks of his hip-joint disease, he was in constant dread of a fresh attack, and had come to me, resolved to have some operation performed. I persuaded him to make instead, trial of carbolic putty. The application produced nausea and headache, and he declared, increased the swelling, pain, and discharge. Yet he made faithful use of the remedy, diminishing its strength to almost nil. He certainly seemed to grow worse. His pulse went up, and his spirits went down. He returned home to endeavor to regain what he had lost. In three months he came back, the better for his trip. The joint trouble had resumed the appearance it presented when I first saw it. He was so clamorous for an operation that I gratified him by making an extensive flap over the diseased locality and removing a considerable portion of carious bone, a part from the femur, some from the ilium. I then carbolized the parts, filled the cavity with antiseptic charpie, stitched the flaps with wire, and dressed with carbolic lotion and putty. The nausea and headache which followed the use of the carbolic acid in the first instance, were produced now in so aggravated a form, that it became necessary, as before, to reduce the strength of the applications. When the charpie was removed on the second day, it was decidedly offensive. The after treatment was entrusted to my excellent friend, Dr. Carey Blackburn, whose experience in the management of wounds, while a member of the surgical staff of the Confederate army, was extensive. Dr. B. has to-day expressed to me the opinion, that he has never seen so large a wound heal so quickly, so kindly, with so little suppuration and so small an amount of constitutional disturbance.

Case 18. S., æt. 50, a hard drinker, of feeble constitution, was struck, while intoxicated, by the leader in an omnibus team and knocked down. His injuries consisted of a bruise of the left leg, below the knee, producing some ecchymosis—a like bruise of the right leg, with the addition of a mere abrasion over the middle of the shin. He was taken home, but did not consider his hurt sufficient to require medical attention. Matters proved to be more serious than he at first thought, and on the fourth day he called in a physician. This gentleman found a gangrenous patch on the right shin, extending upwards towards the knee. He gave proper constitutional treatment and dressed the limb, first, with carbolic acid, then with permanganate of potash. I saw him six days after. At this time the gangrene extended from the crest of the ilium to the tip of the three outer toes. It involved the entire outer half of the limb. The fetor was intolerable. The fluids, from liquefaction of the tissues, drenched his bed. He had the constitutional symptoms belonging to this condition. He received the constitutional treatment proper to it. The entire limb was enveloped in a flax-seed poultice, made with yeast, and heavily carbolized. Over this, carbolic lotion was freely used. Cloths, saturated with it, were kept lying beside the limb. He took, internally, the bisulphites, but they disagreed with him and were abandoned. Notwithstanding this liberal use of the carbolic acid, the stench arising from the parts was not sensibly corrected, nor was the progress of the gangrene sensibly delayed. Extensive openings formed at the upper part of the thigh, on the nates and in the perineum, and death occurred in twenty-four days.

Cases 19 *to* 22 were of chronic cystitis, yielding urine loaded with pus. In one, which was accompanied with extreme pain, injections of carbolic acid gave extreme comfort but did not materially lessen the amount of pus.

In the others it gave no results. The four were subsequently cured by injections of either nitrate of silver, or opium, or chlorate of potash ; the latter a remedy which has been used with much success in this affection by one of my former pupils, Dr. Ely, of Milton, Kentucky.

Case 23. W. B., a bright lad from Lancaster Ky, had his foot crushed by a locomotive. I amputated three inches above the ankle joint, making a somewhat irregular wound by reason of the injury done to the soft parts. I twisted the bleeding vessels, carbolized the stump and dressed with wire, plasters and lotion. The shock of the accident had been severe. That of the operation, though done under chloroform, was severe also. The patient suffered for eighteen hours with nausea, vomiting and headache. I substituted the putty for the lotion. The headache and nausea abated. I now suspected they might have been aggravated, if not in the principal part produced, by the too liberal use of carbolic acid. In removing the dressing I did not disturb the rag which was adhering directly to the wound and which seemed, in itself, to afford an air tight cap to the stump. Considerable vesication, which afterwards became very annoying, had been produced on the under surface of the limb by the lotion; there was little consecutive fever. On the fourth day he struck the stump in some way, which caused a brisk hæmorrhage for a few minutes, and led me—I think now improperly—to remove the dressings. The wound had united throughout two-thirds of its extent. A very small amount of pus appeared in the remaining portion. I was delighted. The next day, however, matters took, for some reason, an unfavorable turn; the parts gaped and suppuration set in. The weather at this time was excessively cold and the patient's room was not a comfortable one. His appetite was poor. He still suffered from headache when the acid was used with any freedom. He had tonics and wine and quinine. His general improvement was slow; the stump furnished but small quantities of pus. The granulations finally rode well over the bones, and, in four weeks, he was sent home, with the wound well cicatrized, except over a small space. A short time after, I had intelligence that the cure was complete.

Case 24. M., a widow, æt. thirty-eight, had an open cancer of the left breast, which involved the centre of the gland, and was of the size of a small orange. The tumor was freely moveable in all directions. The neighboring lymphatics were not enlarged. The discharge from the ulcer was exceedingly offensive. The pain was atrocious. I extirpated the entire mamma, washed the wound with carbolic glycerine, twisted the bleeding vessels, used wire sutures, and dressed with carbolic lotion and carbolic putty. The parts united only very partially by first intention. The amount of pus which subsequently escaped, however, was insignificant, and the cure was complete in seventeen days.

Case 25. Mrs. A., æt. thirty, from Ohio, came to have me remove a tumor, about the size of a pullet's egg, from her left breast. I extirpated, in the usual way, a considerable portion of the gland along with the tumor. Hæmorrhage was controlled by torsion. The wound was carbolized, its edges approximated with silver wire, and the whole covered with carbolic lotion and carbolic putty. The dressings were removed at the end of four days. The entire incision had united, except at its superior angle. Here, and immediately around about it, there was a considerable vesicle, the result, I suppose, of the carbolic acid having accumulated at that point. I removed the sutures and substituted the zinc ointment, slightly carbolized, for the previous dressings. A troublesome eczematous patch about the sore somewhat delayed the cure, which was otherwise complete within fifteen days.

Case 26. Mrs. V., a widow from Mississippi, had me to remove three tumors from her mamma. They were deep-seated, and the incision made in their removal was five inches long. Torsion, and carbolic dressing were used as in the preceding case. Four hours after the operation the patient had a malarial chill. During the hot stage of the paroxysm a smart hæmorrhage occurred at the wound. I was sent for, but did not see her for some hours after, when the bleeding had ceased. She had lost a considerable quantity of blood. The carbolized dressings had been removed, and cold cloths used instead. The wound was distended by a large clot. I gave an opiate, and ordered quinine. She passed a quiet night, but complained the next morning of a disagreeable sense of fulness about the breast, but would, on no account, consent to my touching it. The clot was clearly visible between the edges of the wound, which it had separated, and looked as large as a goose's egg. I thought it a fine opportunity to test the powers of carbolic acid. I therefore saturated the parts with the lotion, and dressed it with the putty. The clot slowly softened, and escaped under the cloths, without a trace of odor. In two weeks it had wholly disappeared, leaving granulations, which speedily closed in cicatrization. There was considerable sero-sanguinolent discharge from the wound, but at no time any quantity of pus. I am sure the cure was retarded by the intermittent, of which she had numerous paroxysms, in spite of the quinine.

Case 27. Mrs. McS. had mammary abscess, which had been neglected for a fortnight. It had opened above the nipple, and when I saw it, it was discharging enormously. I carbolized the cavity, and dressed with carbolic putty. In three days, pus was no longer visible. In ten days, the opening had closed.

Case 28. Mrs. W., with the usefulness of one breast destroyed by previous abscesses, came to me with a deep-seated collection of matter in the sound mamma. I opened it under the antiseptic curtain, emptied the abscess, by pressure, and introduced into the incision some carbolized lint. The next day no pus was observable in the discharge, and soon the deeper parts seemed to have cohered. A few drops of serum alone denoted the previous existence of disease. These quickly disappeared, and closure of the incision and the abscess was as firm as could be.

Case 29. Felix, æt. thirteen, a mulatto, was kicked on the head by a horse. The scalp was extensively lacerated, and the skull fractured over the occipital and right parietal bone, near the vertex. The fracture, which was comminuted and depressed, was one inch and a quarter in diameter. Almost immediately after the accident, I raised and removed the fragments, eighteen or twenty in number. The dura mater was uninjured, except in the centre of the wound, where a small puncture, made by a spiculum of bone or by myself, allowed the escape of the cerebro-spinal fluid. The parts were secured and dressed as in previous cases. There was some nausea and vomiting, and sharp, febrile disturbance for two days. The bladder required to be emptied by the catheter; there was slight delirium, much thirst, no appetite; these troubles, however, soon subsided, and the boy thought himself able to return to his work in ten days. There had been the smallest possible amount of suppuration above the centre of the wound only. At other points it was found united when the dressings were removed on the third day.

Case 30. Mr. B., of Scott county, Ky., got a compound fracture of the right tibia, just below the tubercle, by the kick of a mule. The wound in the integuments was three-quarters of an inch in diameter; the soft parts immediately concerned were much contused; the hæmorrhage was considerable, and had, as I was told, been difficult to arrest. I saw the case fourteen hours after the accident. In removing the temporary dressings, blood again flowed freely from the wound. I immediately plugged the opening with carbolized lint, which I secured by some turns of the roller; this I allowed to remain until I had applied the immovable apparatus. I then, before the eggs and flour had hardened, cut the necessary space in the bandage, and removed the plug. No hæmorrhage followed. Approximation of the edges of the wound, by plasters and the application of carbolic lotion, completed the dressing. The parts were not disturbed for six days, when the wound was found to be a granulating sore, almost healed. Two days after, the patient rode on the cars to his home, distant a hundred miles. His recovery was rapid and uninterrupted.

I might extend this report by the history of yet a large number of cases, but I have already exceeded the limits I had prescribed myself. I cannot, however, conclude it, without stating certain objections to Mr. Lister's preparations. First, the fluid dressings are so strong that they sometimes vesicate the surface, and produce nausea and headache. Secondly, the putty dries with too great rapidity—a property which might have been anticipated from a knowledge of the eminently drying qualities of linseed oil, qualities which, it may be remarked, do not seem to be materially interfered with or altered by the presence and mixture of carbolic acid. Thirdly, when made with the ordinary whiting, the putty is not always a perfectly smooth material. In endeavoring to find out, if possible, an excipient suitable for the formation of a permanently soft and plastic vehicle, in which carbolic acid might enter as an ingredient, I believed, at one time, that I had attained it in an admixture of pure glycerine and prepared chalk. But I regret to say that I have been disappointed. The putty made in this way does not either dry or harden so quickly as that made with boiled linseed oil, and is always perfectly smooth. It will also preserve its plasticity in vessels for weeks, but when applied to the body it becomes hard, oftentimes sooner than is desirable. The glycerine putty is, I think, better than that made with oil, but yet it lacks much as a surgical dressing. A putty which shall preserve its plasticity, is still a desideratum. I need hardly remark that only pure glycerine should be used, as the ordinary article often contains, among other impurities, formic acid, an exceedingly irritating substance. Prepared chalk is superior to the common whiting for making a smooth compound.

The strength of the fluid preparations is easily lessened. I use those containing but half the quantity of carbolic acid recommended by Mr. Lister, and find them quite strong enough, while they are free from the objections alluded to. The disagreeable smell of carbolic acid is readily corrected by the addition of any essential oil, that of the lemon being the one I prefer, one part to eight. I consider that, in using this method, it is of the first importance that the lint which is placed next the parts should, if possible, be allowed to remain till healing is thought to be complete. The old practice of Sir Kenelm Digby, which is now again coming into vogue, of tying up a wounded part in its own blood, is made by the carbolic acid doubly efficient—putrefactive change being in most instances wholly prevented. Many of the cases which I have reported, may I think, be received in evidence of this statement. How much of the value of carbolic acid is due to its antiseptic properties alone, and how much to its power of destroying the atmospheric germs, so called, and how much to the simple exclusion of the atmosphere—which is part of the method of the Scotch surgeon—are questions which my short list of cases does not enable me to determine. The *panspermatism* dogma has the merit of simplicity, and is certainly supported by many ingenious and instructive experiments.

As medical director in the Confederate army throughout the war, I had abundant opportunities of witnessing traumatic gangrene, septicæmia, etc., and I have thought that if the lessons I there learned had taught me anything, it was that if the atmosphere was kept fresh by constant renewal and change, it did not aggravate nor augment these disasters, but oftentimes absolutely arrested them. Bad air begot and intensified them. Fresh air, especially when thrown into currents, seemed always to lessen the havoc they committed. The change from a house to a tent, or from a tent to the shade of a tree, often changed a gangrenous to a healthy sore. So repeatedly have I witnessed this, that I came to regard one of the illustrious soldiers with whom I had the honor to serve, Gen. Albert Sidney Johnston, as a sagacious surgeon, as well as a great captain, when he declared that "wounded men did better undcr tress than in the best constructed hospitals." Yet I do believe that I have had better results in the use ot Mr. Lister's method of treating certain surgical affections than I have ever had before.

ORIGINAL CORRESPONDENCE

"Sit mihi Fas scribere audita."

Paris, April, 1869.

At a meeting of the Academy of Medicine, the eminent *medecin-legiste*, Mr. Tardieu, read a report of researches he had recently made, on poisoning, by *coralline*.

Coralline is the substance employed in dyeing red socks and stockings, and discovered in 1860, by Mr. Persoz. Mr. Tardieu's attention was directed to this study, by the following circumstance: In the month of May, 1868, he was consulted by a young man, for an eruption on his feet, resembling very much eczema, and accompanied by a very severe inflamed state of the skin; besides the eruption, there was general uneasiness, fever, headache, and nausea; Mr. Tardieu prescribed repose and emollient lotions, and at the end of a couple of days, the general uneasiness had disappeared: but the eruption was only cured at the end of three weeks. The peculiarity of the eruption, its localization, led Mr. Tardieu to suspect some local cause; the young man having made use of red silk socks, during the few preceding days, he sought for some poison in the socks, but suspecting mineral poison alone, the results of his researches were negative. Shortly afterwards, a friend of the young man was troubled with a similar eruption, and under the same circumstances; some months later, the first one had another eruption, after attempting to use his socks again. Later, in the month of September, a professor of chemistry, of Rouen, published a similar case; and lastly, a few weeks ago an American lady was taken ill after using red silk stockings; she had an eruption on her legs, some of the pimples became ulcerated, and were very painful; the eruption was accompanied by marked giddiness. Before seeing this last case, Mr. Tardieu was already deep in his researches. After trying different methods, he succeeded in extracting the red colouring substance, by the means of boiling alcohol; it was then dried, and redissolved in a small quantity of alcohol, and used for experimenting on animals. Mr. Tardieu injected it under the skin of a dog, a rabbit, and a frog; the three animals were poisoned; the frog died at the end of four hours, the dog after thirty-six hours, the rabbit the third day only, the latter two animals presenting a violent diarrhœa. Mr. Tardieu then obtained from Mr. Persoz, the inventor, some samples of the substance he uses for the dyeing. Coralline, or peonine, remarked Mr. T., is derived from rosolic acid, which itself is derived from carbolic acid by oxygenation. Mr. T. used the pure coralline sent him, and injected given quantities in animals, which were poisoned in the same way as the first. The pathological appearances they presented are most interesting; the place where the injection was made was the seat of violent inflammation, with formation of pus; the intestines presented traces of acute inflammation of the mucous membrane; the liver, in every case, was the seat of fatty degeneration; and lastly, and here was recognized the essential character of that poisoning: the lungs were dyed a beautiful scarlet color.

Mr. Tardieu then went still farther in his studies, and as a corollary, he extracted the coloring substance from the lungs, and with it he dyed in red some skeins of silk. He then drew from his researches the following conclusions, viz: that coralline introduced into the system can cause death; that it acts as an irritating poison, like drastic substances, for instance; when absorbed, it produces also steatosis or fatty degeneration of the liver, like phosphorus ammonia, or arsenic; that, on the other hand, it can be extracted from the system, with its tinctural properties.

Mr. Tardieu said that, although the accidents coralline had caused so far had luckily been of no serious gravity, it was no reason why, judging from its rapidly mortal effects on animals, it cannot, in certain circumstances, become dangerous to man. I have since been told that those accidents have already been observed in England.

I mentioned briefly, in my last letter, a case of arterial aneurism in the popliteal space, cured by forced flexion. Mr. Verneuil, surgeon to Lariboisière Hospital, read, recently, before the Academy of Medicine, the relations of an exceedingly instructive case of spontaneous popliteal aneurism. Three points Mr. Verneuil particularly insisted on: firstly, the patient was simultaneously affected with glycosuria, a coincidence little studied up so far; secondly, the compression of the femoral artery, usually efficacious and at all events innocent, not only failed in this case, but was attended with serious local disorders; and thirdly, by the forced flexion of the leg, he succeeded in curing the aneurism, but it had to be seconded by direct compression, and used with prudence and minute precaution. The treatment had already been commenced when Mr. Verneuil first saw the patient; compression had been made alternately in Scarpa's triangle, and on the lower extremity of the thigh; the compression had become rapidly insupportable, and on the parts where the pads had been applied there was an appearance of sphacelus (which soon became evident). The tumor was about the size of the fist, and without well-defined limits; the sack appeared thick; on the external side there was a marked thrill; the foot and leg were slightly œdematous, and the skin was very painful. The patient was feeble, pale, sleepless, and had marked fever. Upon examining the urine, it was found to contain a great quantity of sugar. It was then some perplexing questions arose. In the first place, Mr. Verneuil said he did not know what were the relations between the glycosuria and the formation of the aneurism—whether it was a simple coincidence or not. As to the question of treatment, mechanical compression was impossible; digital compression, on account of the eschar, had at least to be put off for some time; the other methods—accupuncture, direct compression, ligature, etc., could not promise much; but abstraction made of the method, said he, it was first important to know something about the the plasticity of the blood in glycosuria, and no analysis, up to then, had given the proparation of fibrine in those cases. It had been remarked, during the compression that had been made, that the tumour had become a little more solid, and that remark led Mr. V. to hope that a fibroid clot (Broca's clot) could be obtained. The general condition of the patient was so bad that it was decided to treat first and solely the diabetes. Opium was prescribed, with a very complete and strict anti-glycosuric diet, (eggs, fish, gluten bread, raw meat, Bordeaux wine, milk and Vichy water). In a very short time there was a great amendment in the general health, and the proportion of sugar in the urine had much diminished; the local disorders were also better; when the eschar in Scarpa's triangle had become a little loose, it was seen to extend through quite to the artery, so that the idea of digital compression had to be abandoned, for the artery was perhaps already slightly implicated. The forced flexion of the leg being found to diminish the pulsations in the aneurism, it was decided to try that method. It was then asked if the same general treatment was to be continued; for, it was thought to obtain the requisite plasticity of the blood for a fibroid clot, a different system of diet ought to be followed from that which had so successfully amended the glycosuria (the sugar had totally disappeared from the urine); it was decided to keep up a tonic diet, with the addition of digital. It required several days before the patient could support the flexion of the knee, on account of the pain it caused; but, little by little, it was maintained for a longer and longer space of time. The tumour diminished in size, and the souffle also gradually diminished; twenty days afterwards, it was observed that the amendment ceased to continue, and it was only by adding direct compression, with a pad, that the pulsations and the souffle completely disappeared. The aneurism was at last cured, but a new source of annoyance then appeared: the leg could not be straightened out. With great patience, and little by little, this end was obtained, and the patient was then completely cured of his aneurism. The glycosuria, after several fluctuations, was found, some months afterwards, to have completely ceased.

In conclusion, M. Verneuil said he did not know the relation existing between the glycosuria and the aneurism, but certainly it complicated singularly the treatment, and that, in spite of the diabetes, the blood had retained its plasticity, which did not appear to have been troubled by the anti-diabetic diet.

I spoke in my last letter of some cutaneous eruptions that had been observed by Mr. Verneuil, in pyæmia, and I said that Mr. V. knew of no other cases having been published, but similar eruptions have been observed by Callender, and recorded in Holmes' surgery, vol. 1. Another case has been observed by Dr. Braidwood, and recorded in a work on pyæmia that he has just published in England.

An interesting case was recently reported before the Society of Surgery. A woman, 96 years of age, in a fall, fractured the neck of her left femur; the fracture was extra-capsulary; an apparatus was applied by Dr. Maisonneuve, but the patient would not keep it on, and a few days afterward she got up; she continued to do so every day, sitting up in an arm chair. At the end of two months, the fracture was completely consolidated, with a shortening of about an inch and a half. The case is not only interesting, on account of the great age of the patient, but also on account of the spontaneous consolidation of the fracture.

Dr. Démarquay, surgeon to the Hospital Dubois, read before the Academy of Medicine, an extract of a work he has published on "Absorption by Wounds." We find several interesting details in it. The substance he employed in his experiments was iodide of potassum, of which exceedingly small quantities can be detected in the saliva. He made sixty-eight experiments, and concluded that all wounds were capable of absorption to a greater or less degree, and according to certain circumstances, which will be seen further on. He first showed that by injecting in the sub-cutaneous tissue, the iodide appeared in the saliva, between ten and twenty minutes; he then observed that absorption differed, when the derma was covered by the epidermis, simply lifted up by a blister, or when it was completely denuded; in the latter case, the absorption was much more rapid. The author then, on account of his experiments, admitted the division of wounds into recent ones, and those covered by granulations, the same wound serving him twice. He observed that in the first case, the iodide appeared in the saliva in about fifteen or twenty minutes, as in the case of subcutaneous injection, and that in the second, the absorption was much more rapid; ten, eight, six or four minutes sufficed. In an ulcerated cancer of the breast, the iodide was found in the saliva at the end of four minutes, and in cancer of the uterus at the end of one minute and a half to two minutes. He concluded from his experiments that, whatever the cause of the wound, whatever its situation, the rapidity of the absorption was in direct ratio to its vascularity. The practical conclusions can be drawn by any one, so I will not insist on them.

Dr. Démarquay next studied absorption in cystic cavities, purulent or others, and he observed, that acute and cold abscesses, both absorbed iodide; the second much more rapidly than the first. He mentioned a case, where he had injected iodine in an ovarian cyst, and was unable to extract it afterwards; the patient died the same day, with all the symptoms of intoxication by iodine. He then remarked that iodine, absorbed in the system, took four or five days to pass completely out, and concluded that iodism might be caused, either by a great quantity of iodine being absorbed at once, as in the above case, or by its accumulation, little by little, in the system.

The same surgeon read before the Society of Surgery a case of hydatids in the humerus. The patient came to consult him for a diffused phlegmon of the arm, but, on examining closely, he found, besides the phlegmon (and having been the cause of it) a considerable swelling of the bone. On incising the soft parts, and opening the bone with a gouge, the humerus was found to contain a a great number of hydatid cysts mixed with pus; the whole bone was filled with them, from one end to the other. The man then narrated that three years before he had received a gun-shot wound in the arm; that it had been inflamed several times, and terminated each time by the formation of an abscess, which, on being opened, gave issue to pus, with a certain number of similar cysts. M. Démarquay stated that the patient ultimately left his service completely cured. He added, that in M. Davaine's work on entozoaires (Paris) can be found the relation of three other examples of hydatid cysts in the humerus, each having been consecutive to wounds.

M. Verneuil, in the same meeting, spoke of a case he had in his wards where a gangrenous phlegmon had been occasioned by phlebotomy; the patient's urine was found to contain a great quantity of albumen. Similar cases, said he, have been reported in diabetes, and he thought that, like in diabetes, in albuminuria also, the general condition of the patient, more than the uncleanliness of the lancet, should be accused as having occasioned the accident. It was then recalled, how often simple punctures, made with a lancet in the lower extremities, infiltrated during the course of albuminuria or diseases of the heart, are followed by gangrene. I may here be permitted to remark, how much more simple, and, I think perfectly harmless, is puncturing the legs in those cases, simply with a pin or needle. It is incredible, to those who have never seen it, what a quantity of serum often flows from these little punctures.

We find quoted from the Medical Gazette, of Lombardy, a very singular case of prolonged anuria. A woman of twenty-seven years of age, subject to amenorrhœa and leucorrhœa for the preceding five months, consulted for suppression of urine since twenty-four hours; the catheter extracted but a few drops of a black liquid; the same state continued without any new phenomenon, and on the twenty-fifth day, Dr. Albertini, of the Hospital of Milan, was consulted, but could find no explanation for the anuria; the general condition of the patient was intact. Professor Rodolf, of Brescia, was also consulted, (I mention these names as vouchers for the case,) he prescribed emmenagogues; the courses at last appeared, and at the same time six hundred grammes of urine were extracted the forty-third day after complete suppression. The patient's health suffered in no degree during this lapse of time nor afterwards.

I seize the occasion of mentioning, in a few words, a case of complete anuria for two days, that happened in our wards here, but for a totally different reason; the patient was suffering from uræmia, which affected a slow, insidious, comatose form; the principal interest in the case was in the post-mortem appearances; one of the kidneys was transformed into a cyst, the other was very nearly completely destroyed by fatty degeneration; both the ureters were distended to nearly the size of a finger;

their lower extremity, before entering into the bladder, passed along the neck of the womb, through puckered-up tissues, formed by the vestiges of the broad ligaments and by old false membranes, forming a hard mass; the free passage of the urine was thus hindered, and the afore-mentioned lesions were the consequence; thus it was, a perimetritis had become the cause of death, by uræmia. I reported the case to the *societé anatomique*, and one of the members recalled a case he had observed, where a cancer of the womb had englobed the lower extremities of the ureters in the same way, and had become the cause of uræmia, which in his case had affected the epileptic form.

Mr. Bailly, professor of accouchements, read before the society of surgery, an account of a case of dystocia, caused by hypertrophy of the inferior segment of the womb. My space will permit me only to review the case very briefly. The woman was a primipara, aged twenty; she presented nothing remarkable until the term of delivery, when she entered the hospital. All the lower segment of the womb was perfectly hard and thick; the sensation it gave, when touched, was compared to what it might be if sculptured in a turnip. Pains set in, and on the third day the os uteri was only dilated to the size of a half dollar; the general condition permitted of no longer delay; two incisions were made in the os, but even then the forceps could not be applied, and craniotomy alone permitted the extraction of the fœtus. (The pulsations of the heart had been found absent when the woman first entered the hospital.)

The patient died twenty-seven hours afterwards, and at the autopsy there was found peritonitis, with a great quantity of pus and false membranes, showing that the inflammation had set in before the delivery. The incisions made with the bistoury in the os had greatly split during the extraction, but did not enter the peritoneal cavity. Microscopic examination of the morbid parts showed fatty degeneration of the muscular fibres, with hypertrophy of the fibrous tissue. Several questions, in relation to this case, were discussed by the society; for instance—as to its nature, its cause, and to the moment of its apparition.

We have at present in Paris a very great quantity of pneumonia and pleurisy, and with no apparent reason, for the weather is mild and dry, and there are no sudden changes in the temperature; but, nevertheless, the proportion of those diseases is very considerable.

We have also a great deal of puerperal fever, but rather less though than last month; several of the lying-in wards in the different hospitals have been closed on account of it. None of the cases that I observed in our lying-in ward here assumed the rapid form; all commenced by metritis, and the peritoneum only became effected several days afterwards.

New York City, May, 1869.

There is nothing, just at present, particularly active, new or startling, in the medical world of New York. Having turned out a batch of over three hundred young doctors this Spring, enough, as Dr. Holmes says, "to disorder the whole community," the medical schools are taking a little breathing spell, as it were. There are very few lectures going on, but interesting daily clinics take place at the three medical colleges, at the New York and Bellevue Hospitals, at the great Charity Hospital on Blackwell's Island, and at the New York and Thirty-fourth street Cosmopolitan Eye and Ear Infirmary. Thus those students who are spending their Spring and Summer in the city, have ample opportunities for daily adding to their stock of useful, practical information and experience. Their advantages, in this particular, are even greater than they would be in the winter's course, for now, there being so few didactic lectures, they can devote their whole time and attention to clinical instruction, and there being but few, comparatively speaking, attending each clinic, each student can have a better opportunity for fully examining cases for himself, and convincing himself of the nature of the sufferer's complaint, or of the correctness of an expressed diagnosis, than he could amidst the hurry of a crowded winter's clinic.

For the most part, the weather with us has been delightful, and on some days the temperature remarkably high for this season of the year. The flower-shops have been glorious with the beauty, freshness and brightness of flowers—rejoicing the heart of all passers by. The health of the city is good. The report of the sanitary superintendent Dr. Harris to the Board of Health, for the week ending Saturday last, shows that there were 420 deaths in this city and 144 in Brooklyn. The variation from the death rate of the corresponding week in 1866, 1867 and 1868, varied slightly from these figures. Measles and scarlatina were the cause of sixty-eight deaths in the two cities. In New York, two hundred and fifty-two of these deaths occurred in tenement houses, sixty-four in public institutions, and one hundred and four in other dwellings. The number of births was two hundred and twenty-eight, and of marriages three hundred and ten.

At a late exceedingly interesting meeting of the Lyceum of Natural History, held at the Mott memorial house, No. 58 Madison avenue, "Mr. Wood presented a specimen of madrapore from Tortugas. Dr. Feuchtwanger gave an account of a child born of a shepherdess, in Switzerland, with a tumor 4½ by 3½ inches, pear-shaped, on its back, which proved to contain a fœtus. Dr. Buckland remarked that the case was by no means rare, Dr. Fisher, of Sing Sing, having repeatedly met with it. Professor Martin exhibited a specimen of a beetle, oxacis dorsalis, found at Sandy Hook in crevices of dry timber, rare in this locality, and only found within a range of six miles. The president exhibited a bottle of petroleum from Alaska, taken from a petroleum lake there, (presumed to be a continuation of the California carboniferous formation;) also, coal and fossil plants, the former equal in quality to that of any American colliery. Mr Seeley claimed that the element of matter have the character of sexuality, and that such element was created in pairs."

The widow of the late Dr. DeWitt C. Enos has presented to the Long Island Historical Society, her deceased husband's entire medical library, a most valuable gift, consisting of eight hundred and fifteen bound volumes, seventy-four unbound volumes and a large number of pamphlets.

The old physicians and surgeons of this city are gradually passing away. We have lately been called upon to mourn the death of the respected physician and fellow-citizen, Dr. Alexander H. Stevens. Dr. Stevens was born in the city of New York, September 4th, 1789, and was consequently eighty years of age, at the time of his death. During his career, the doctor has occupied many positions of responsibility and trust, and now, at the end of an honorable life, leaves behind him a lasting reputation and a multitude of sorrowing friends.

During the year 1868, 92,272 persons were subsisted in the various institutions under the charge of the Commissioners of public charities and correction of the city of New York. Of these, 46,807 persons were in the city prisons; 16,946 in the workhouse, and the remainder in the different asylums, hospitals, schools, etc.

The rage for velocipedes still continues amongst all classes, but we have not as yet heard of any physician in New York who visit his patients on a velocipede, as does one of our brethren in Reading, Pennsylvania, according to the Philadelphia Medical and Surgical Reporter.

Yours very truly,
JAMES B. BURNET, M.D.

WELBORN, FLA., 1869.

A case of poisoning, from strychnine, occurred in this place, and thinking it would be interesting to your readers, I give you the particulars and treatment.

Mrs. W., aged 19 years, under treatment for disease of the womb. Mr. W., (her husband), in giving what he thought a preparation of opium, gave *two and a quarter* grains of strychnia. I was called on the night of the 6th, in great haste, to see her, and upon arriving learned that about forty minutes before seeing her the poison had been given, and twenty-five minutes after she complained of feeling very queer; and, becoming alarmed, I was sent for to see her. I found her sitting up in bed, and unable to move any of her limbs, and, when moved for her, she had marked convulsions, complained of stiffness of the jaws; speech indistinct, tongue trembling, and unable to protrude it beyond the the lips; deglutition difficult, breathing rather laborious, the pulse not much affected. Now, here is a case of poisoning by strychnine. What should be done? We have no antidote for it—too late to administer an emetic with any hope of success. I considered the case as hopeless, and concluded to experiment. I gave her ten drops of tincture of iodine, but deglutition was performed with so much difficulty that I also gave one dose per rectum, and in half an hour the dose was repeated. Up to the time of the first dose she was growing rapidly worse, but as soon as the iodine was given she grew no worse; and when the second dose was given she began to amend, and in four hours was free from the effects of the drug, except the soreness, which was great, and lasted several days. My reason for trying the iodine is, that in prescribing quinine and strychnine in conjunction with iodine, that there is a precipitate, which I supposed was the strychnine that was thrown down. May we not hope, upon further trial, that iodine may be found to be a safe antidote for that poisonous drug?

W. C. MALLORY, M. D.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

"Judex Damnatur cum nocens Absolvitur."

DISEASES OF CHILDREN: A CLINICAL TREATISE, BASED ON LECTURES DELIVERED AT THE HOSPITAL FOR SICK CHILDREN. By THOMAS HILLIER, M. D., London, F. R. C. P. Physician to Hospital for Sick Children. Philadelphia: Lindsay & Blakiston, 1868; pp. 402, 8vo. Price, $3.

There is no greater want felt by the modern practitioner than a reliable work, on the diseases of children, which, containing all that is practical and useful, is not unpleasantly voluminous, and may be obtained at a reasonable price. It is believed that the work of Dr. Hillier will receive the commendation of every plain, common-sense thinker; while even the ultra-progressive faction must admit that it is a fair reflex of medical science at the present day. The field in which Dr. Hillier has labored is entered by few, yet it contains much that has never been duly cultivated, and must certainly yield fruit unknown, comparatively, to the thousands who annually wait to analyze its interesting harvests.

There is no fact more palpable to the physician, who is accustomed to think for himself, than that our many classic works on general Practice are not usually adapted to the treatment of children, and that the observations of specialists in this department of science are particularly needed and desired. Where idiosyncrasy and diathesis are strongly marked; where sensibility to medication is always extreme; where vitality is comparatively feeble and undeveloped; where oral examination is impracticable; where the subjective in pathological phenomena cannot readily be reached, and the practitioner, in his reliance on all that is objective in the manifestations of disease, has not enjoyed a liberal experience in the necessary scrutiny of the physiognomy, posture, gestures and behavior of his little patients, the recorded practical testimony of such an expert as Dr. Hillier becomes specially valuable and interesting.

His style is plain, with no attempt at rhetoric, fine writing or display. Another feature of interest in this work is that it is "a series of short monographs on the most important diseases." These are catalogued, as follows: pneumonia, pleurisy, rickets, tuberculosis, diphtheria, acute hydrocephalus, meningeal tubercle, otorrhœa, chorea, infantile paralysis, scarlatina, typhoid fever, epilepsy, cerebral affections, etc.

There is, as a rule, great orthodoxy in the pathological views of the author, but in regard to the pathology of diphtheria, the reviewer must take issue with him. His views, though ingeniously defended, and though similar to those of one (Dr. Jacobi, of New York,) who, in America has paid more than usual attention to this subject, are no regarded as sound or tenable. Thus Dr. Hillier regards membranous croup and diphtheria as identical in their pathology. The differences seem to the reviewer so marked and broad, that to him it is beyond description surprising, that any sound reasoner can fail to appreciate them.

Diphtheria.	*Croup.*
Disease of the blood; a toxæmia; a constitutional disease, with local manifestations.	Not a disease of the blood; a local disease, with constitutional manifestations.
Blood primarily affected; sometimes there are no local manifestations.	Blood, if at all, affected secondarily; local manifestations invariable.
First exhibits itself in the fauces, locally.	Locally, first exhibits itself in the trachea.
Commences always above the rima glottidis.	Commences always below the rima glottidis.
Does not extend below the rima glottidis, unless complicated with croup.	Never extends above the rima glottidis.
Asthenic disease; constitutional symptoms primary; local symptoms secondary.	Sthenic disease: local symptoms primary, and constitutional symptoms secondary.
Depression often manifested without dyspnœa.	Depression not often manifested before dyspnœa.
Contagious.	Not contagious.
Not peculiar to any age.	Peculiar chiefly to infancy and childhood.
Respiration not affected, unless the disease extends downwards; dyspnœa not a prominent symptom.	Impaired and difficult respiration always a prominent symptom; often the chief symptom.
No cough, unless croup supervenes.	Cough almost invariably present.
The membranous exudation of fibrin always commences above the rima glottidis.	The membranous exudation of albumen always commences below the rima glottidis.
Exudation only extends below, as a complication.	Exudation never extends above.
Occasionally there is a cutaneous eruption.	There is never a cutaneous eruption.
Epidemic chiefly and seldom sporadic.	Sporadic and never epidemic.
Swelling of the lymphatic glands behind the jaw frequently occurs.	Swelling of the lymphatic glands behind the jaw never occurs.

Diphtheria.	*Croup.*
Duration, one to three weeks, with sequelæ.	Duration never beyond the 11th day (Cragie) no sequelæ.
Exudation fibrinous.	Exudation albuminous.
Dyspnœa rare and, when present, uniform.	Dyspnœa common and invariably spasmodic.
Dyspnœa not produced or increased by deglutition.	Dyspnœa frequently caused and increased by deglutition.
Invades at all hours.	Invades chiefly at night.
Not caused by cold and dampness.	Generally caused by cold and dampness.
Antiphlogistic treatment injurious.	Antiphlogistic treatment curative.
Tracheotomy contra-indicated and generally forbidden; no constitutional resiliency.	Tracheotomy indicated and advised ; constitutional resiliency very decided.
Sequelæ; paralysis, strabismus, amaurosis, etc.	No sequelæ.
Fœtor of the breath constant and great.	Fœtor of the breath generally absent.
"Dissolution of the blood;" loss of its coagulating power.	"Dissolution of the blood" never seen; increase of its coagulating power.
Constitutional symptoms precede the local.	Local symptoms precede the constitutional.
Membranous exudation always present (as a rule) and always seen; present as the rule.	Membranous exudation seldom present and never seen ; present as the exception.
Exudation thick, buff coloured ; coriaceous.	Exudation thin ; not buff coloured ; not coriaceous.
Membrane renewed as the rule.	Membrane renewed as the exception.
Death, when disease is uncomplicated, from asthenia.	Death from apnœa.
Sound of the cough soft and moist.	Sound of the cough sonorous and metallic.
Convalescence slow, unreliable, and complicated with the sequelæ of the disease ; interrupted.	Convalescence easy and uniform ; no sequelæ ; uninterrupted.

The treatment recommended by Dr. Hillier, in most diseases is simple and rational. The work will be found very valuable and those desiring authority on this interesting subdivision of the practice of medicine, would de well to obtain this volume.

II.—A PRACTICAL TREATISE ON THE DISEASES OF WOMEN. By T. GAILLARD THOMAS, M.D. Prófessor of Obstetrics in the College of Physicians and Surgeons, New York, etc. Second Edition Revised and Improved. Philadelphia: Henry C. Lea, 1869. 8vo., pp. 647. Price, $6. From the publishers.

This work has been so recently reviewed in this Journal, that it it unnecessary to say much more in regard to it. In one year, the whole of the first edition (a large one) has been exhausted, and the publishers have been called upon to issue a still further edition, to meet the necessary demands for the work. It must be a source of pride and pleasure to the author, to find his first work presented to the public, so generally appreciated and deservedly valued. Though revision has been made to some extent, the author admits that it has not been thorough, on account of a want of sufficient opportunity for this remunerative and advisable labor. It is to be regretted that some credit is not given to Drs. Bozeman, Bryant and Storer, for their varions modifications of the vaginal speculum, and that the analysis of Mastin's method of operating for the relief of vesico-vaginal fistulæ has not received more attention from the author.

The chapter on chlorosis has been added to the work, and will materially increase its value. The views of Andral, Becquerel, Rodier, Hammond, and others, are practically adopted, and the valuable information thus given, in a condensed form, to the profession, will not only materially diminish the obscurity surrounding this subject, but will certainly enable the practitioner to treat this, and the disease for which it is often mistaken, (anæmia) with greater precision and satisfaction. Dr. Thomas, in common with our best modern authors, makes between the diseases anæmia and chlorosis, a differential diagnosis, marked and decided. As he has arranged the symptoms of these respective diseases antithetically, and in a tabulated form, it is deemed best to give this table verbatim, as it will furnish, at a glance, the broad pathological differences existing:

Anæmia	*Chlorosis*
Is merely impoverishment of the blood from want of nourishment, from some drain upon the system, or from some poison in the blood.	Is a disease of the nervous system, and may occur with or without the production of its most common symptom anæmia.
Can usually be accounted for by discovery of some special cause.	Cannot usually be accounted for by discovery of special cause.
Occurs at all periods of life, to men, women and children.	Occurs in true type only to girls about the time of puberty.
Is readily curable by removal of cause, good diet, and administration of iron.	Is affected favorably only by remedies which act upon the nervous system, as alteratives and tonics.
Is always characterized by impoverishment of blood.	Sometimes exists without impoverishment of the blood.
Produces a puffy and pale appearance.	Produces a light green color.
Does not produce sadness or great nervous disquietude.	Produces sadness and nervour disquietude.
Is unaccompanied by visceral neuralgia.	Is constantly accompanied by visceral neuralgia.
Fibrin diminished in blood.	Fibrin increased in blood.
No special affection of solar plexus of nerves.	Pain, uneasiness or distress commonly referred to solar plexus.
Iron always does good.	Iron often increases discomfort.
Symptoms of ovulation will be noticed without menstruation.	Neither symptoms of ovulation nor menstruation will be observed.
The cause of the disease being removed, the patient will rapidly improve.	If the supposed cause be removed the patient will often improve but slowly.

The work of the publishers is done in excellent style, and is beyond criticism.

III.—A MANUAL OF THE DISSECTIONS OF THE HUMAN BODY. By LUTHER HOLDEN, F. R. C. S. Lecturer on Anatomy at St. Bartholomew's Hospital, etc. By Erskine Mason, M. D., Demonstrator of Anatomy at the College of Surgeons, New York, etc. Illustrated with numerous wood engravings. New York: Robert M. De Witt, publisher, 1868, pp. 388.

This work is published in a superior manner. It is issued by a house which does not publish extensively, but judiciously and well.

The author does not pretend that his volume is to be accepted as a treatise on anatomy. It is strictly what is claimed for it by its title, a guide for the dissector. As a Dissector, it is not surpassed by any of the manuals before the public. There is one department of the work which is valuable beyond question; it is that in which is described the anomalies in the muscles and blood-vessels. The illustrations are good, and, as a whole, the work can be confidently recommended.

MISCELLANEOUS.

"Non Omnes Eadem Mirantur Ament Que."

ANALYSIS OF THE LIFE OF DR. ZINA PITCHER.—Dr. Zina Pitcher, son of Nathaniel Pitcher and Margaret Stevenson, was born April 12, 1797, in a rural section of Washington county, New York, of parents who shared in the hardships incident to a residence on the theatre of some of the struggles, by which the independence of the thirteen colonies, forming the United States of America, was achieved.

His mother, when he was but five years of age, was left a widow, with five young sons to provide for, out of the resources obtained from the culture of a new plantation. The early training of the subject of this sketch, of course, was in the school of adversity, by which those traits of character were developed, most apt to mature in a rugged and uncongenial soil. As a daughter of Scotia, where the parochial, (the analogue of our own free schools,) first took root, his mother imbibed, from her native air, a just appreciation of the value of education, and consequently made every effort in her power to secure its advantages for her children. The district school and the county academy were the only institutions of learning, at which she was able to support her sons, whilst they were acquiring a knowledge of the elementary sciences, without which, even the ordinary pursuits of life are conducted with disadvantage.

At the age of twenty-one, Dr. Pitcher commenced the study of medicine, in the office of a private practitioner, where the next ensuing four years were passed, except whilst in attendance upon two courses of lectures, at the Castleton School of Medicine, in Vermont, until he received the degree of M.D., in 1822, from Middlebury College. On entering upon professional studies, the necessity of classical training as a qualification for such a pursuit, became so obvious that he engaged a fellow student to act as his private tutor, under whose direction he continued a course of preparatory study, and at the same time kept abreast with his colleague in their joint professional investigations. Immediately after obtaining his medical diploma, he received from the administration of President Monroe, the appointment of assistant surgeon in the army, at the time the War Department was receiving its impress of order from the masterly administrative genius of John C. Calhoun, and entered at once into the service of the United States, feeling all the embarrassment incident to the assumption of such grave responsibilities as his commission devolved upon him, without having received one lesson in clinical instruction. In our conversations with him on this subject, we perceive how the medical tyro might be led to question the utility of clinical training, from seeing in his example, the striking manifestation of a well poised self-reliance, supposed, if not in reality; an inherent attribute of character, developed by the severity of the test to which his medical scholarship was put, at the outset of his professional career.

He retained his position in the army until the close of the year 1836, having been promoted to the rank of surgeon, under the administration of Andrew Jackson, whilst his cherished friend, General Cass, was Secretary of War. During his period of service in the army, he was stationed at different points on the Northern Lakes, (then a savage frontier,) on the tributaries of Arkansas, among the Creeks, Cherokees, Choctaws and Osages, and at Fortress Monroe, in Virginia. His leisure hours, when at these out-posts of civilization, were devoted to the study of natural science, to observations on the habits of the Indian race, to inquiries into the nature of their diseases and the means adopted by them for their recovery from sickness. Some of the fruits of his diligence in these pursuits may be seen in the books on American botany; in the plants dedicated to him; on the fossils on which his name is inscribed; in his letter to Dr. Morton on the existence of consumption among the aborigines; and in an article written by him on the subject of practical therapeutics among the Indians, printed in the fourth number of Schoolcraft's history, "Condition and Prospects of the Indian Tribes."

On being ordered to the seaboard, he was detailed to act as a member of the Army Medical Board, of which he was made presiding officer, in 1835. When President Jackson, with his family, sought a respite from the cares of office, by retreating to Fort Calhoun in the Hampton Roads, Dr. Pitcher became a frequent visitor at the Rip Raps, in virtue of his profession. The acquaintance thus formed, grew into into a friendship, grateful to the physician who had won his way to the respect of the hero President.

On becoming a citizen of Michigan, 1836, which had just then adopted a State constitution, he at once took a conspicuous part in the organization of her institutions of learning, the means for sustaining which had been provided for by the United States, in the appropriation of lands ceded to the General Government by the State of Virginia, when she relinquished her jurisdiction over the Northern Territory. For this purpose he sought the appointment of Regent of the University, which trust he held from 1837 to 1852. During this time the University was organized, the Medical Department of which was essentially the work of his hands. When the members of that Faculty were appointed, at their request, he allowed his name to be placed on the catalogue as an Emeritus Professor.

In 1839, he was invited by Mr. Poinsett, to serve as a member of the Board of Visitors at West Point, and his political friends elected him to the office of mayor of Detroit, in 1840, and again in 1841 and 1843. Before his second term had expired he prevailed upon the members of the Common Council of the city, to unite with him in petitioning the State Legislature, which then held its sessions in Detroit, for the enactment of a law to authorize the establishment of free public schools in the city of Detroit. The accomplishment of this object, he considers the achievement of his life. In 1859 he was appointed an examiner of the mint by President Buchanan.

Without ever intending to relinquish his profession to engage in politics as a pursuit, he, in order to assist in preserving the organization of the Whig party, so as to make it effective in 1844, in promoting the election of Henry Clay, accepted the nomination of that party and became their candidate for the office of Governor of the State of Michigan, in 1843. From 1848 to 1867, he performed the duties of physician and surgeon to St. Mary's Hospital, which is under the charge of Sisters of the Order St. Vincent; and also of surgeon of the U. S. Marine Hospital, at Detroit, during the administration of Mr. Buchanan, having received that appointment from Mr. Guthrie, of Kentucky, on the eve of his departure from Washington, at the close of Mr. Pierce's presidential term. Whilst thus publicly employed, he never pretermitted his engagements as a private practitioner; and found leisure to attend the meetings of the American Medical Association at Cincinnati, Richmond, New York, Philadelphia, Louisville, Nashville, Washington, Boston and Detroit, being at the last mentioned place elected president of the Association.

His ambition has never been stimulated by a desire to acquire notoriety by authorship. This he imputes to the obstacles that retarded his progress in the acquirement of those elementary accomplishments which are essential to the graces of style and at the same time lend ease and facility to the labor of composition. His literary productions consist of addresses made to county, State and National Medical Societies; to graduating classes of medical students; to reports on medical education; and on epidemics made to the American Medical Association, to the city Board of Health; of contributions to the Medical journals, and particularly the Peninsular Journal, of which he was for some years one of the editors.

The friends of Doctor Pitcher, in other States, have given gratifying tokens of their respect by making him a member of their various scientific organizations, he having been elected an honorary member of the New York and Rhode Island Medical Societies, corresponding member of the Philadelphia Academy of Natural Science, of the New York Lyceum of Natural History and of the New York and Minnesota Historical Societies, and Trustee of the Michigan State Asylum. D. H. T.

THE AMERICAN MEDICAL ASSOCIATION.—*Proceedings of the Opening Day.*—The American Medical Association met in the Mechanics' Institute, at 11 o'clock, A. M., May 4th.

The President, Dr. W. O. Baldwin, of Alabama, occupied the chair, assisted by Vice Presidents Drs. George Mendenhall, of Ohio, and S. M. Bemiss, of Louisiana.

The Permanent Secretary, Dr. W. B. Atkinson, of Pennsylvania, and Assistant Secretary, Dr. A. J. Semmes, of Georgia, were present.

The President invited to seats on the platform, Drs. Warren Stone, A. Lopez, of New Orleans, ex-Presidents H. F. Askew, of Delaware, N. S. Davis, of Illinois and Alden March, of New York.

The session was opened with prayer by Rev. Mr. Gallaher, of New Orleans; this prayer being most chaste and eloquent.

Dr. T. G. Richardson, of Louisiana, chairman of the Committee of Arrangements, welcomed the delegates to the city in a short and happy address.

The President then delivered the annual address.*

Letters were read by the Permanent Secretary, from Drs. S. D. Gross, of Pennsylvania; W. Byard and W. Canniff, of Canada; and R. A. Kinloch, chairman of the Medical Society of South Carolina, expressing regret at their inability to be present on this occasion.

On motion of Dr. Mussey, it was resolved that each State Medical Society be requested to prepare "an Annual Register of all the regular practitioners of medicine in their respective States, giving the name of the colleges in which they may have graduated, and date of diploma of license."

---

*This address was universally praised and justly admired. It will be given in full in the July number of this Journal. There is no possible space for it in this issue, and the editor will not injure the address by curtailing it.

Special reports of committees were then made as follows:

On devising a plan for the relief of widows and orphans of medical men, Dr. H. Griscom, New York, Chairman; this was referred to the Committee on Publication.

On veterinary colleges, Dr. Thomas Antisell, District of Columbia, Chairman; reported progress, and was continued.

On specialties in medicine, and the propriety of specialists advertising, Dr. E. Lloyd Howard, Maryland, Chairman; reported and made the special order for Wednesday at 12 M.

On library of American medical works, Dr. J. M. Toner, District of Columbia, Chairman; reported, and was, on motion of Dr. Davis, made the special order for Wednesday at 1 P. M.

On the best method of Treatment for the different forms of Cleft Palate—Dr. J. R. Whitehead, New York, Chairman. Reported and referred to section on surgery.

On Rank of Medical Men in the Navy—Dr. N. S. Davis, Illinois, Chairman, announced that their last year's report was final, and the committee was discharged.

The report on Medical Ethics, by Dr. D. Francis Condie, Pennsylvania, Chairman, was read by Dr. Davis, and adopted.

On American Medical Necrology—Dr. C. C. Cox, Maryland, Chairman, reported progress, and was continued on motion of Dr. Davis. Dr. Cox was authorized to fill all vacancies on his committee.

Voluntary communications were presented; by Dr. Jos. Jones, of Louisiana, on Mollities Ossium, and referred to section on surgery.

On cases of Lead Palsy, from use of cosmetics, by Dr. L. A. Sayre. Referred to section on hygiene.

On the Physiology and Chemistry of Longevity, by Dr. Cutler, of Mississippi. Referred to section on hygiene.

On the protective and preventive uses of quinine, by Dr. S. Rogers, of New York. Referred to section on practical medicine.

On the tongue in malarious diseases, by Dr. Osborn, of Alabama. Referred to section on practical medicine.

On the warm cerebro-spinal bath in the treatment of congenital apnœa, and on a new method of artificial respiration, by Dr. E. D. McDaniel, of Alabama. Referred to section on practical medicine.

Reports on climatology and epidemics were received from Drs. Thoms, of New York; T. J. Heard, of Texas; F. W. Hatch, of California; E. A. Hildreth, of West Virginia; which were referred to the section on climatology and epidemics.

On motion of Dr. Davis, the report on the revision of the plan of organization was made the special order for Wednesday, at 10 A. M.

Near the hour of adjournment to-day, Dr. Eve suggested that the many papers on education, ready to be offered, be laid before the Association on the next morning at 9 o'clock.

Dr. Davis, of Chicago, moved that all such papers be referred to a special committee of five.

Dr. Eve seconded this motion, which being carried, the President appointed Drs. Davis, of Illinois; P. F. Eve, of Tennessee; E. S. Gaillard, of Kentucky; E. Lee Jones, of New York; and J. K. Bartlett, of Wisconsin.

On motion, adjourned until Wednesday, at 9 A. M.

The special feature of this day's proceedings was the delivery of the President's address, which was universally commended and admired.

Second Day's Proceedings.—The attendance yesterday was much larger than on the first day. A number of arrivals had increased the *personnel* of the Association to near three hundred. The hall was well filled, and the same dignified deportment which had marked the deliberations of the members on the opening day, was displayed on the second day. Much of the facility with which the deliberations were conducted yesterday, and the promptness with which action was taken upon the various resolutions, were, undoubtedly, due to the tact and practical administrative knowledge displayed by President Baldwin.

At 9 A. M., Dr. W. O. Baldwin, the President, in the chair, called the meeting to order.

A paper on "The Canula and the New Mode of Applying Ligatures," was aabmitted by Dr. P. F. Eve, (Tenn.) and was referred to the section on surgery.

Dr. J. M. Bush, of Kentucky, offered the following resolution:

Resolved, That a committee of five members be appointed by the chair, to take into consideration the subjects alluded to in the President's address, and report at this meeting.

This resolution having been adopted, the President selected as members of the committee, Dr. Parvin, of Indiana, Chairman; Dr. Toner, of the District of Columbia; Dr. Pollock, of Pennsylvania; Dr. Welch, of Texas; Dr. Seeley, of Alabama.

Dr. McPheeters, of Missouri, offered a communication from the Medical Association of that State, in reference to medical education.

On motion of Dr. Toner, District of Columbia, it was referred to the special committee on that subject.

Dr. Eve offered the minutes of the Medical Society of Tennessee, which were similarly referred.

Dr. Gaillard, of Kentucky, offered the following preamble and resolutions, which were referred to the same committee:

WHEREAS, The medical teachers of America have, after a trial of twenty-two years, failed to meet satisfactorily and efficiently the requirements of the great body of the profession in regard to medical education; and

Whereas, The condition of the profession is yearly becoming more deplorable on account of the antagonistic and objectionable policy of medical schools, in making the amount of fees charged, rather than scientific teaching, the basis of competition; and

Whereas, To obtain professionally competent graduates, sound and efficient teachers are indispensably necessary; and

Whereas, Such teachers, to be found throughout the country, cannot be induced to leave their homes without the assurance of competent remuneration; and

Whereas, Such remuneration can only be obtained by adequate fees charged, unless by a system of low fees the number of students be relied upon to make up the inevitable pecuniary deficiency; and

Whereas, Reliance upon numbers of students for this purpose deplorably crowds the already over-crowded professional field, diminishing thereby individual income, judgment, experience and skill, thereby compelling practitioners to resort to other avocations as a source of supplemental income; and

Whereas, This devotion to other pursuits destroys opportunities for study and improvement, degrading thereby the status and standard of American physicians; and

Whereas, The schools of New England, New York, Pennsylvania, Maryland, Virginia, S. Carolina, Georgia, Missouri, Tennessee, Louisiana, Alabama and District of Columbia now charge comparatively remunerative fees; and

Whereas, The *low system* of fees is charged only in a few of the Middle States, and can with advantage be made to conform to the rate of fees charged elsewhere; and

Whereas, It is as unethical for colleges to underbid each other pecuniarly as it is for practitioners to do so.

Resolved, That hereafter no medical school in this country, other than those fully endowed, be entitled to representation in this Association, if the amount charged by such schools for a single course of regular lectures be less than one hundred and forty dollars.

Resolved, That all schools charging less than this sum are earnestly requested by this Association to advance their rate of fees to the amount mentioned.

The report of Dr. Lee, of New York, the delegate to the Association of Superintendents of Insane Asylums, was offered and referred to the Section on Psychology.

The report of Dr. Gross, of Pennsylvania, delegate to the Foreign Medical Ascociation, was presented, which, together with the letter to Dr. Ehrenberg, was read and referred to the Committee on Publication.

The time having arrived for consideration of the revision of the plan of organization, it was, on motion, taken up.

A recess was taken to allow the selection of members of the Committee on Nominations.

On reassembling, the permanent Secretary announced the following as the Committee on Nominations:

New York—J. C. Smith; Delaware—H. F. Askew; Pennsylvania—A. M. Pollack; Kentucky—H. M. Skillman; Tennessee—J. B. Lindsley; Mississippi—W. Y. Gadbury; Alabama—J. Cochran; Ohio—J. Townsend; Indiana—B. S. Woodworth; Illinois—T. D. Fitch; Wisconsin—H. Van Dusen; Missouri—J. S. Moore; Michigan—J. B. White; Georgia—R. D. Arnold; Louisiana—S. Logan; Texas—S. M. Welch; Minnesota—C. N. Hewitt; Arkansas—R. G. Jennings; West Virginia—W. J. Bates; Rhode Island—G. L. Collins; District of Columbia—L. W. Ritchie; United States Army—J. J. Woodward; United States Navy—F. E. Potter.

Dr. Chaillé, of Louisiana, submitted a proposition for a common medical nomenclature in the United States, taking as a model an official publication on the subject by the Royal College of Physicians of London, and offered the following resolutions, which were adopted:

Resolved, That a committee of five be appointed by the President to report, as soon as practicable, at the present session of this Association, upon the following:

1. The propriety of adopting and using its influence to have adopted, by the entire medical profession in the United States, the provisional "Nomenclature of Diseases of the Royal College of Physicians."

2. On the practicability of having this nomenclature published in such manner as may render it easily and cheaply accessible to every member of the profession.

3. To recommend such other practical measures for the action of this Association as may be necessary to introduce this nomenclature into official (military, naval, etc.) and general use.

The chair appointed the following gentlemen as the committee: Drs. Woodward, U. S. A.; Heustis, of Alabama; F. G. Smith, of Pennsylvania; and Chaillé, of Louisiana.

The reports of the Committee of Publication, and the Treasurer, were read, accepted, and referred to the Committee of Publication.

On motion, the Committee on Nominations were permitted to retire for consultation.

The special order for 12 being the report on Specialists, it was read by the Secretary, and, on motion of Dr. Sayre, the resolutions were adopted and the report referred to the Committee of Publication.

The large number of arrivals to-day increased the *personnel* of the Association to nearly four hundred.

Dr. L. P. Yandell, jr., of Kentucky, introduced the following resolution:

Resolved, That private handbills, addressed to the members of the medical profession, or advertisements in newspapers, calling the attention of professional brethren to themselves as specialists, be declared in violation of article one, section three, of the code of Ethics of the American Medical Association.

Dr. S. N. Davis, of Illinois, said it had been the practice to publish cards in medical journals for the purpose of informing the medical fraternity that the advertiser devotes himself to special diseases. These cards were not so much for the information of the public, as for the medical fraternity. He hoped that, now the question was up, it would be discussed fully.

Dr. L. P. Yandell, of Kentucky—We have allowed physicians to violate the code of ethics by advertising in medical journals that they are specialists in the treatment of certain diseases. In Europe they are stricter in regard to specialists than here.* There, where a physician wins a reputation in the treatment of certain diseases, his professional brethren send cases to him for treatment, but advertisement is prohibited. If we are allowed to resort to advertisements not as a question of merit, but of money, this association should so declare. I am sure I am right in principle and I want to get an expression from this association.

Dr. Sayre, of New York—Let those who understand the best mode of treatment in special diseases instruct their professional brethern through the proper channels, as the only honorable way of preferment, not by advertising as a matter of dollars and cents. Let us look the matter squarely in the face and sustain the resolution of Dr. Yandell. May my hand be paralyzed if I make any attempt to profit by advertising the knowledge I have attained in my profession.

Dr. Mussy, of Ohio, moved to amend by inserting "or in medical journals."

This amendment was accepted unanimously.

Mr. Davis, of Illinois—The question before us is one to settle the interpretation of the existing statute. The question is whether that rule of ethics shall be enforced prohibiting publication of cards calling attention of individuals laboring under particular diseases.

Dr. Yandell stated that he had preferred charges against a practitioner of Louisville for advertising himself as a specialist in the newspapers, and for sending handbills to physicians, but that the medical societies of that city not having sustained him he brought this subject up for the action of this Association. The question is, shall we associate with professional prostitutes and medical outlaws.

Dr. Yandell's resolution was unanimously adopted.

---

*Sichel, Donders, Von Græffe, etc., placard the streets with their advertisements, and, in Edinburgh, specialists have their specialty engraved on their door-plates.

The committee on prize Essays reported as follows, their report being adopted:

They have received but two essays—one upon "the Physiological Effects and Therapeutical Uses of Atropia and its Salts;" the other upon "Quinine as a Therapeutic Agent." They agree to present both of these essays to the association, and to recommend the award of a prize of one hundred dollars to each of them.

S. M. Bemiss, Chairman.
C. Beard.
Joseph T. Scott.
S. A. Smith.

The Secretary broke the seals, and announced that Dr. S. S. Herrick, of New Orleans, was the author of the paper on quinine, and Dr. Roberts Bartholow, of Cincinnati, was the author of that on atropia.

Dr. Booth, of Mississippi, offered the following preamble and resolution;

Whereas, The proper construction of art. 4, sec. 1, Code of Ethics, A. M. A., having been called for, relative to consultation with irregular practitioners who are graduates of regular schools;

Resolved, That said art. 4, sec. 1, Code of Ethics A. M. A., excludes all such practitioners from recognition by the regular profession.

This resolution was *unanimously* adopted.

On motion, the Association adjourned until Thursday, at 9:00 A. M.

Third Day, Thursday, May 6, 1869.—The proceedings of yesterday were, undoubtedly, the most important held since the opening of the season. The reports of special committees—some of them bearing upon questions vital to the interests of medical science—were read and appropriately acted upon. Among the ablest reports was that on President Baldwin's address, and one from the Committee on Medical Education. Much was done yesterday toward defining clearly the position to be assumed during the coming year by the Association. Many of the technical reports are of a high order of ability.

Dr. Baldwin, President, in the chair. Dr. S. M. Bemiss and Dr. Mendenhall, Vice Presidents.

Reading of the minutes was dispensed with.

On Dr. Parvin's report of Committee on President's Address, your committee desire to present the following report:

We cannot refrain, before entering upon the consideration of the plan recommended by the President for the improvement of medical education, gladly expressing our high appreciation of the general tone of this address, of the broad and catholic spirit which pervades it, finding expression in earnest and eloquent words—in brief, we believe the address worthy the perusal of every member of the profession, in that it was worthy the memorable occasion, and is worthy the annals of medicine.

On the other hand, we cannot refrain, with sadness be it said, from acknowledging the truth of the terrible allegations made against the present condition of medical education, and the little success attending the efforts for improvements in such connection, made during a score of years.

The special recommendation made by the President is in these words:

"I would advise that we appoint a committee of our wisest and best men to digest a plan for one or more National Medical Schools, and to memorialize Congress in behalf of the enterprise. Let the plan embrace as a basis the features presented by the Cincinnati Convention of Teachers; let these schools or universities confer such distinctions and privileges as will be proportionate to the superiority they demand, and such as will make the attainment of their diploma an object of the ambition of those who engage in the study of medicine; let the choice be open to all aspirants, and the appointment or election of professors so guarded as to secure the very highest talent, the most profound learning, with the most fully demonstrated capacity for teaching. Make the salaries of the professors large, and not to depend upon the number of students; and let the Federal Goverment assume a proper share of the expense incurred."

Your committee express their hearty approval of this general plan, but suggest that the effort at first should be for the establishment of but a single school, as more feasible, and besides, one such institution would be a model which other medical colleges might in time be induced to imitate in extent, duration and throughness of teaching and rigidness of requirements for the degree of M. D.

We likewise desire to say that when the details of this general plan are thrown into form, there should be the amplest security against the places and the power of such a medical college as designed, ever falling into the hands of politicians. Medicine is higher than politics; broader than political creeds and party platforms.

In conclusion, your committee reiterate the recommendation of the President as to the appointment of a committee for the special purposes referred to.

The President appointed this committee as follows: Dr. N. S. Davis, of Chicago; Dr. F. Gurney Smith, of Philadelphia; Dr. D. H. Storer, of Boston; Dr. E. S. Gaillard, of Louisville; Dr. Joseph Jones, of New Orleans.

On motion, Dr. W. O. Baldwin, of Montgomery, was added to the committee.

The President appointed as delegates to the British Medical Association: Drs. N. Piney, U. S. N.; R. R. McIlvain, Ohio; J. F. Hibberd, Indiana; B. Lindsey, D. C.; G. B. Blackman, Ohio; Donald Maclean, of Louisville, Ky. To the Canadian Association: Dr. Alden March, Albany, N. Y.

Dr. Davis read a report of a meeting of editors and presented the following from the Association of American Medical Editors:*

To the American Medical Association: I have been instructed to announce to your honorable body, that several members of your Association in attendance on this annual meeting, after proper consultation, have effected a permanent organization with the title of "The Association of American Medical Editors." The objects of this organization are the cultivation of friendly relations; mutual assistance; community of effort and views, where possible, in a system of receiving foreign exchanges, and sending our own journals abroad; concert of action in support of improvement in the present system of medical education, and of a higher standard of preliminary attainments for those who propose to enter upon the study of medicine; in proposing laws for the proper registration of births, marriages, and deaths; in collecting the names of all the regular practitioners in the several States; and in promoting generally the value and efficiency of our periodical medical literature. The Association thus formed is to hold its annual session on the day preceding the annual meetings of this body, and in the same localities. Dr. Mitchell, of New Orleans is the permanent Secretary, and Dr. J. B. Lindsley, of Nashville, Tenn., the Assistant Secretary.

---

*The proceedings of their first meeting will be published next month.—Ed.

Congratulating your honorable body on the establishment of another organized power within the ranks of our noble profession,

I remain yours, most truly,
N. S. DAVIS.

President of Association of American Medical Editors.

Referred to Committee on Publication.*

In the case of special violation of the code in Louisville, Kentucky, Dr. Gaillard desired to remove an unfortunate and incorrect impression created in the minds of the members of the Association by one of the delegates from Louisville, (Dr. Yandell,) in regard to a failure on the part two medical societies in that city to meet promptly and fully an alleged breach of the code of ethics on the part of one of the members of these societies.

Dr. Gaillard stated that he was satisfied Dr. Yandell had no intention of creating a false impression in this connection. The gentleman against whom charges had been preferred was a German of professional proficiency, who recently arrived, and ignorant of the code of ethics, had advertised himself as a specialist in the daily papers, and had sent private handbills to professional men. As soon as this gentleman was apprised of his fault he had promptly withdrawn his advertisement from the daily papers, and had ceased sending the handbills mentioned. The medical societies of Louisville decided that, though there had been a breach in the letter of the code of ethics, the gentleman arraigned had no intention of doing what was professionally wrong. These societies therefore declined to expel the member against whom these charges had been preferred. Dr. Gaillard thought it due to those societies and to the gentleman offending that this explanation should go upon the records.

The Committee on Nominations—Dr. J. J. Woodward, U. S. A., President—reported the following names:

REPORT OF THE NOMINATING COMMITTEE.

NEW ORLEANS, LA., May 6, 1869.

The Committee on Nominations unanimously reported as follows:

For President—Geo. Mendenhall, Ohio.

For Vice Presidents—Warren Stone, La.; Lewis A. Sayre, N. Y.; F. Gurney Smith, Pa.; John S. Moore, Mo.

For Assistant Secretary—Wm. Lee, D. C.

---

* Dr. W. M. McPheeters, of St. Louis, was elected First Vice President.—ED.

For Treasurer—Caspar Wistar, Pa.

For Librarian—Robt. Reyburn, D. C.

Committee of Arrangements—Thomas Antisell, Chairman; Robert Reyburn, C. M. Ford, L. W. Ritchie, W. J. C. Duhamel, D. R. Hayner, C. F. Nally.

Committee on Publication—F. Gurney Smith, Pa., Chairman; W. B. Atkinson. Pa.; A. J. Semmes, Ga.; Robert Reyburn, D. C.; Caspar Wistar, Pa.; H. F. Askew, Del.; Wm. Maybury, Pa.

Committee on Medical Literature—J. J. Woodward, U. S. A., Chairman; W. H. Anderson, Ala.; Theophilus Parvin, Ind.; Hosmer A. Johnson, Ill.; C. W. Parsons, R. I.

Committee on Prize Essays—Grafton Tyler, D. C., Chairman; N. R. Lincoln, D. C.; N. R. Smith, Md.; G. W. Miltenberger, Md.; W. R. Dunbar, Md.

Committee on Epidemics— Added the following to fill vacancies: J. K. Bartlett, Wis.; J. B. Jackson, Ky.

Committee on Education—T. G. Richardson, La., Chairman; E. W. Jenks, Mich.; E. S. Gaillard, Ky.; W. M. McPheeters, Mo.

Time for meeting, in Washington, first Tuesday in May, 1870. J. J. Woodward, U. S. A., Chairman.

The report was unanimously adopted.

Dr. Davis offered the following:

Resolved, That a special committee of three be appointed by the President to present copies of the resolutions adopted before the several State Medical Societies at as early a period as possible. Adopted.

Dr. Chaillé, of Louisiana, chairman of the committee, presented a report on medical nomenclature, which was received and adopted, and referred to Committee on Publication.

The Committee on the Nomenclature of Diseases have the honor to report that it has examined the "Provisional Nomenclature of the Royal College of Physicians" of London, and is of the opinion that it is desirable for this Association to recommend and adopt the same for general use in this country, with such modifications as, on deliberate consideration, may appear to be necessary. The following resolutions are therefore submitted:

1. *Resolved*, That a special committee of fifteen be appointed by the President to take this subject into deliberate consideration, and to report at the next annual session what alterations, if any, are necessary to adapt the proposed nomenclature to general use in the United States.

2. That this committee be authorized to fill up any vacancies which may occur upon it.

3. That the Committee on Publication be authorized to publish, for general distribution, one thousand copies of the English and Latin portions of this Nomenclature, under the designation of the Proposed Nomenclature, prefacing the same with such remarks as may be deemed necessary to secure the criticism and coöperation of as large a number of American medical men as practicable.

4. That the committee hereby appointed be directed to draw the attention of the Surgeon General of the army, of the Chief of the Bureau of Medicine and Surgery of the navy, and of the Superintendent of the Census, to the question of their official adoption of the proposed Nomenclature; to invite them to appoint whom they see fit to represent them on this committee; and to solicit such coöperation as may be necessary to accomplish the purpose desired, viz: the final adoption of such Nomenclature and classification as will receive the conjoint approval of the official medical bureaus of the Government and of the general profession.

STANFORD E. CHAILLÉ, M. D., Chairman.

Committee.—S. E. Chaillé, Louisiana; J. J. Woodward, United States Army; A. B. Palmer, Michigan; F. G. Smith, Pennsylvania; J. F. Heustis, Alabama.

The following committee of fifteen was appointed:

Francis G. Smith, Chairman; J. J. Woodward, U. S. A.; R. F. Michel, Alabama; A. B. Palmer, Michigan; S. E. Chaillé, Louisiana; L. P. Yandell, jr., Kentucky; Austin Flint, New York; Alonzo Clark, New York; George B. Wood, Pennsylvania; E. Jarvis, Massachusetts; Theo. Parvin, Indiana; W. M. McPheeters, Missouri; E. M. Snow, Rhode Island; N. Pinkney, U. S. N.

The Committee to whom were referred, on a day previous, all papers on the subject of Medical Education, next reported. This committee consisted of Drs. N. S. Davis, Paul F. Eve, E. S. Gaillard, E. Lee Jones and J. K. Bartlett.

(A copy of this report could not be obtained in New Orleans from the permanent secretary, Dr. Atkinson, and the copy expected has not reached the editor. This report will be published next month. It virtually refers the papers received by the committee to State Medical Societies, with the recommendation that they take prompt and favorable action in regard to them. One of these papers is designed to induce the creation of State Medical Boards, elected by State Medical Societies; each Board having the exclusive privilege of examining all candidates for graduation in the Medical Colleges of the State, and all seeking a license to practice in the State. A second paper recommends the creation of a Code of Ethics for Medical Colleges. The third paper embraces the preamble and resolutions of Dr. Gaillard, given elsewhere in this report.)

The committee having thus rendered impracticable an expression of the wish and desire of the Association, in regard to the important subject of collegiate fees which had, with other matters, been referred to it, Dr. Gaillard offered the following motion, with a view of testing the strength of the high-fee and low-fee parties, respectively represented by high-fee and low-fee Colleges, whose duly accredited delegates and friends were present at the Association. It is proper to say that, at this moment, the Association Hall was conspicuously crowded; that there was the warmest interest and closest attention manifested; that the silence and stillness of the Hall were marked; that there was every opportunity given by the Association for debate, (speakers on both sides being equally limited to five minutes,) and that the President of the Body did not put the question to vote, until a marked period of silence had elapsed between the delivery of the last speech and that subsequent period when, in obedience to constant and frequent calls for the "question," the Association was called upon to vote. There was applause, both after the unanimously affirmative vote given, and after the remarkable fact revealed, that not one vote was given in the negative.

Moved, That the adoption of a uniform rate of collegiate fees, $120, being the MINIMUM, be accepted as the sentiment and desire of this Association.

Dr. Gaillard stated that he would not trespass upon the time of the Association in speaking upon this motion; that all of the members present were fully informed upon this subject. He said the profession desired to learn the wish and decision of the Association upon this all important question, and he asked a full expression of opinion and a full vote in regard to it.

Dr. Sayre, of New York, opposed the resolution, but, on understanding that it did not prohibit an *increase* of fees, withdrew his objections. He spoke against cheap medical colleges, which allured young men to an imperfect medical education, who were afterward turned back to the plow.

An amendment was proposed by Dr. Logan, of Louisiana, to make the minimum $140 instead of $120.

Dr. Mussey, of Ohio, opposed the amendment, and stated that the fees of Ohio had to be kept down to accord with the fees of Michigan colleges. The location of the college and the cost of living made the difference. A hundred and forty dollar college is considered good, simply because a hundred and forty dollars is the fee, while other colleges were equally as good where the fees were only eighty dollars. It is impracticable to accomplish this change at once. A new college starts and comes up to the full standard of the old college in the vicinity, and the latter comes down with its fees. The new college must come down, also, in order to maintain itself.

Dr. McPheeters, of Missouri, did not agree with Dr. Mussey that it was impracticable to fix the collegiate fees at a minimum of one hundred and twenty dollars. He favored the original resolution without amendment.

Dr. Palmer, of Michigan, alluded to the remarks of Dr. Sayre, of New York, disparaging "one-horse or cheap colleges." The University of Michigan was established and allowed a donation from the General Government, of two townships of land, and it has husbanded its resources, and can maintain itself with moderate fees. Under the organic law of the State, citizens of Michigan were entitled to the benefits of the university free of charge, and, as a liberal donation had been made by the General Government, students had been admitted from other States on the same terms. Lately, however, a small fee had been charged for students from other States, who received the benefit of the lectures. We come up in fees just as far as we think is for the advantage of the institution, and we do not go beyond that point, because it will diminish the numbers. We are willing to put up the fees for students from other States to one hundred and forty dollars, if neighboring States will make the same requirements from their students as we do.

Dr. Palmer then commenced describing the great advantages of this school, when Dr. Gaillard called him to order, stating that we were present to discuss principles involved, and not to listen to eulogies upon special schools. (By special vote, Drs. Mussey and Palmer were allowed to continue their speeches, after the five minutes allotted, had expired.)

Dr. Davis, of Illinois: I do not object to having Dr. Palmer discuss the fees, but I do claim that it is out of place to advertise the superior claims of State colleges here. We have had no more illiterate students in our Illinois college than have come to us after one course in the University of Michigan.

Dr. Parvin, of Indiana: I move to amend by striking out $140, and inserting $100. If we make the fees of colleges uniform, the next step will be to make the fees of practitioners uniform—the same in the villages of the West as in the city of New York—and that is not equitable or practicable.

Dr. Logan, of Louisiana, advocated the sum of $140 as the minimum of collegiate fees, and advocated the adoption of his amendment. Lost.

The amendment of Dr. Parvin, to fix the minimum at $100, was also lost.

The resolution was then, as originally presented, unanimously adopted.

A special committee was proposed by Dr. J. J. Woodward, on the relative advantages of Syme's and Pirogoff's mode of amputating at the ankle—Dr. G. A. Otis, U. S. A., chairman; Dr. J. M. Holloway, of Louisville, Ky. Approved.

Dr. Bemiss presented from Dr. John Waters, of St. Louis, Missouri, a paper on the Doctrines of Force—Physical and Vital.

Dr. Toner, D. C., moved that a Committee on Variola be appointed—Dr. J. Jones, chairman. Adopted.

Dr. Pinckney, U. S. N., made statements concerning relative grades of rank. The paper was ordered to be spread upon the minutes.

Association adjourned to meet at 9 o'clock, A. M., Friday, May 7th.

Fourth Day, Friday, May 7th, 1869. The Association met at 9 o'clock, Dr. Baldwin in the chair.

Reading of the minutes omitted.

Dr. Joseph Jones, of Louisiana, presented a number of specimens of pathology, anatomy and natural history. The explanations were very interesting, and were received with applause.

On motion of Dr. Garrish, of Kentucky, the thanks of the Association were tendered to Dr. Jones.

On motion of Dr. F. G. Smith, of Pennsylvania, the following resolutions were unanimously adopted by a vote of the members present; standing as a mark of respect:

Resolved, That the thanks of this "Association" are justly due and are hereby tendered to the President for the uniform kindness and courtesy with which he has presided over its deliberations, and to the Committee of Arrangements, the physicians, and citizens of New Orleans, for the generous hospitality and fraternal kindness with which we have been received and treated during our sojourn in their city, with the assurance that the memories of this visit will always be among the brightest and most enduring of our lives.

Resolved, That we also present our thanks to the various railroad and steamboat companies who have so liberally extended to us facilities of transportation, and to the daily press for their efficient aid in reporting the proceedings of this meeting.

On motion of Dr. J. P. Moore, of Mississippi, the following preamble and resolution were unanimously adopted:

WHEREAS, The contract system is contrary to medical ethics,

Resolved, That all contract physicians, as well as those guilty of bidding for practice at less rates than those established by a majority of regular graduates of the same locality, be classed as irregular practitioners.

The following reports of the Sections followed:

Section on Meteorology, Medical Topography and Epidemics reported. Paper accepted and referred to the Committee on Publications.

Sections on Practical Medicine and Obstetrics reported; papers accepted, and referred to Committee on Publication.

The report on training of nurses was accepted and the resolutions adopted.

Section on Medical Jurisprudence, Hygiene, and Physiology reported. Committee continued for next year. Report accepted and referred to Committee on Publication.

Section on Surgery proposed that their report be received without formality and be referred to the Committee on Publication.* Adopted.

---

* The arduous services of Dr. Holloway, as temporary Secretary of this Section, should have been and should be complimentarily mentioned.

After being read, the report was accepted and ordered to be published.

Section on Psychology, reported; the same disposition made.

The President appointed Dr. J. M. Toner a committee of one, at Washington, D. C., to assist the Librarian of Congress to keep the books of the Association.

On motion for adjournment, the President delivered this address, which was unanimously accepted and ordered to be published in the Transactions of the Association:

Gentlemen: Before I submit the motion just made, and which, when adopted, will practically close my official relations to this body, allow me to return you my most cordial and grateful thanks for the universal kindness which I have received at your hands. Whatever my future lot in life may be, the world holds no honors which to me can equal those conferred by you. The fraternal good-will which has so conspicuously marked your deliberations has been to me a matter of infinite satisfaction and pride, and will not be the least among the grateful memories which will gladden my heart, as I may hereafter review the incidents of my official connection with you.

To win your judgment and approval, to hold up the dignity of fellowship, the usefulness of association and the interest and prosperity of the profession at large, have certainly occupied my most anxious thoughts since my elevation to this position; yet to cherish and promote the intimate and cordial relations of friendship between the individual members of this Association against all sectional distinctions or geographical lines, has also been among the chief objects of my ambition and the earnest desires of my heart. Could I now believe that my efforts have contributed in the slightest degree to enlarging that harmony of sentiment and fraternal feeling which has been so apparent throughout this meeting, I should feel that I had commenced at least to make some return for the great honor and kindness received at your hands.

It now only remains for me, gentlemen, to again express to you my thanks, to wish you a safe return to your homes and labors, a happy reunion with your friends and families, and to pronounce that sad word, over which the heart of friendship would fain linger, as I bid you an affectionate farewell. W. O. Baldwin, President A. M. A.

The convention adjourned to meet in Washington. D. C., the second Tuesday in May, 1870.

MEDICAL NEWS.

"Nulla Dies, Siue Linea."

CHEAP MEDICAL SCHOOLS—The Pacific Medical and Surgical Journal says: "There are five Medical Colleges in which the fees of instruction have been reduced to the Cheap-John standard—those of Louisville, Cincinnati, Chicago, Cleveland and Detroit." It is hoped that the students get more than they pay for. We are sorry to see Louisville in this category.—[*St. Louis Med. Reporter.*

KENTUCKY SCHOOL OF MEDICINE.

Louisville, Ky., May 20, 1869.—At a meeting of the Faculty of this School, May 13th, the following preamble and resolution were unanimously adopted:

WHEREAS, The medical colleges of the United States have, hitherto, in vain sought for an expression of the wish of the American Medical Profession in regard to the amount of fees proper for a single official course of lectures; and

WHEREAS, The American Medical Association did, by a vote conspicuously unanimous, decide, on the 6th of May, 1869, that $120 should be accepted as the MINIMUM amount to be charged for such a course of lectures; and

WHEREAS, This vote is morally and honorably binding upon all who personally, or by delegated authority entered into it; and

WHEREAS, The Faculty of the Kentucky School of Medicine, in common with all reputable members of the medical profession, accepts the decisions of the American Medical Association, as representing, through its delegated organizations, the sentiment and desire of the great body of American physicians;

Be it hereby resolved, That the Faculty of the Kentucky School of Medicine acknowledges this officially expressed wish of the Association as its guide in this relation, and that it will hereafter charge $120 for each official course of its collegiate lectures.

L. J. FRAZEE, M. D., Dean.

The undersigned, by a special vote of the Faculty, is instructed to send a copy of the above proceedings to the Deans of Medical Schools in the United States, for the information of their respective Schools; and to also send a copy to each American Medical Journal, with the request, that the facts mentioned may be made public in such a manner as, in the judgment of the editors of these Journals, may appear expedient and best.

L. J. FRAZEE, M. D., Dean.

The "College of Physicians and Surgeons of Louisville" (a Medical Society,) has, by a very large majority, supported and endorsed the action of the American Medical Association, in regard to the recognition of $120 as being the MINIMUM fee, for a single official course of collegiate lectures.

The Obstetrical Society of Louisville has passed resolutions to the same effect, there having been in this society but one dissenting voice.

The Medico-Chirurgical Society of Louisville endorsed the action of the Association, in this relation, unanimously.

LOUISVILLE OBSTETRICAL SOCIETY.—The following resolutions were passed by the Louisville Obstetrical Society at its last regular semi-monthly meeting. There was but one dissenting voice. The action of Societies and Faculties will be cheerfully published:

Resolved, That this Society most heartily endorses the action of the American Medical Association at its last meeting in New Orleans, on the question of medical education, unanimously disapproving of the low-fee system of medical instruction.

Resolved, That the Secretary be directed to hand a copy of these resolutions to the R. & L. Medical Journal, and the daily papers of our city, and that he also forward, as soon as practicable, a copy of the same to the Permanent Secretary of the Association, Dr. Atkinson, of Philadelphia.

D. H. NEWMAN, Secretary.

LOUISVILLE, May 26th, 1869.

WHEREAS, We (the Faculty of the Louisville Medical College) recognize the American Medical Association as the highest medical tribunal in the United States, from whose decision, on all questions relating to the honor and interest of the medical profession, there can be no appeal; and whereas, said Association has already expressed its opinion as to the fees proper to be charged by medical schools; therefore,

Resolved, That we deem all further discussion of the subject as superfluous, and must decline taking part, or being represented, in any assembly of medical teachers convened for that purpose.

[The editor has been requested by the Faculty to publish this resolution.]

EDITORIAL.

"Nullius Addictus Jurare in Verba Magistri".—Hor.

The American Medical Association.—The present number of the Journal contains so full and accurate an account of the proceedings of this body, that it is unnecessary to make any other remarks upon the work executed, than to say, that, in the experience of the oldest members, there has never been a session of the Association, during which as much and as important business has been so promptly performed.

Much of this excellent result was due to the tact, sound judgment and administrative talent of the President, Dr. W. O. Baldwin, of Montgomery, Alabama, a gentleman who, in common with his friends, has every reason to remember, with pride and satisfaction, his thoroughly successful and distinguished administration.

Apart from these facts and the work performed, the profession is to be warmly congratulated upon the welcome and conspicuous harmony which characterized the association of the delegates present; whether this association be criticised in the council chamber, or in the private residences and hotels of the city. This fact was perhaps the most agreeable feature of this most agreeable and successful convention, and the country is to be as warmly congratulated, as has been the profession, on this auspicious and most acceptable feature of our last meeting. Nothing more welcomely and successfully fostered this spirit than the elegant, continued and refined hospitality of the physicians of New Orleans. If the fearful hand of war cruelly but temporarily wrecked the purse and prosperity of this classic city, it has passed, untouched, the warm, true and hospitable hearts of its historic citizens. The meeting so recently adjourned has had a most favorable influence upon all who were present and must have this influence also upon their friends in distant homes; for all have felt the kindly influences of this professional and personal association; they will universally testify that it was well to have been there to enjoy the pleasure and profit of so harmonious and distinguished an assemblage. The effects of this meeting will be felt permanently, but nowhere more than in Washington in May, 1870.

The Western Journal of Medicine.—In the May number of this journal, its editor thus writes of the editor of the Richmond and Louisville Medical Journal: "One of our contemporaries, who will not publish the laudations that may be written of himself or his excellent Journal, does not hesitate to state in his paper, that he, the aforesaid editor, has been elected a "corresponding member" of the Gynæcological Society of Boston, etc., etc.;" but we confess *we shrink from such public acknowledgment on our part.*" This is all very touching, admirable and modest, but it would have been still more so, if the editor of the Western Journal of Medicine had *not taken the best care to record that he had received the same honor*; "*we shrink from such publtc acknowledgment on our part.*" Such acknowledgment as he has made is conspicuously and undeniably *private!!* The writer admits that Prof. Parvin is as modest and diffident and careful in this connection as the Professor believes himself to be, but as this gentleman has a quick perception and excellent memory, he will not, when familiar with the record of his own journal, accept or consider such testimony in the light of admiration for his modesty.

In the September number of the Leavenworth Medical Herald, the writer read the following *puff*, and after completing such reading, he smilingly speculated as to the disposition that would be made of it, by the exchanges. What Journal does the reader suppose was the first and only one to reproduce this article? Surely not the journal edited by one who shrinks from public acknowledgment of commendation or honor received! Surely not; yet if the reader will consult page 664 *of the October number* of Dr. Parvin's Journal, he will find in that journal and in that alone, this florid eulogy of his work and this excellent advertisement in regard to its management:

"*The Western Journal of Medicine.*—When one receives a batch of letters, he generally turns them over and selects those for first reading in which he has the deepest interest. So when we find our monthly supply of medical journals on our table we look for those whose contents are most interesting to us. Of these the Western Journal of Medicine stands among the foremost. It is most ably and *industriously* edited; frank, generous; and although its editor, Dr. Parvin, is attached to a college in Cincinnati, it is utterly free from any college partizanship. It is published as a *medical journal*, and not as a *college announcement*. In a word, it comes almost as near being an independent journal as the Leavenworth Herald. If any of our subscribers wish another Western journal beside the Herald, let them remember Dr. Parvin's at Indianapolis, Indiana."—[*Leavenworth Medical Herald.*

In October last, Dr. Parvin, in common with many professors throughout the country, delivered an inaugural address before a medical class. In the January number of the Western Journal of Medicine, the writer read with some interest a laudatory review of an inaugural address delivered in one of our Western Colleges. Whose address does the reader suppose was thus reviewed in *that* Journal? The address of Dr. Parvin, its editor? Impossible! yet on page of 51 of the January issue of that Journal the curious will find the title of this address in flaming capitals; with more space devoted to its review, than was given to reviews of the physiology of Dalton, or of Seaton's admirable work on vaccination, or the important and voluminous Practice of Dr. Austin Flint.

If the writer erred in publishing (in common with all authors) the fact that he had been the recipient of a "corresponding membership," he is willing and ready to suffer for it. The esteem and respect of his brethren is to him one of the most valued gifts that the world can bestow, but he is willing in part to forfeit this, if he has done wrong. He only asks that such condemnation should be bestowed by those having a right to do so. To others he would refer pleasantly to the classic parable of the beam and mote, and request that he who is guilty should be the last and not the foremost to cast the first stone.

Had the writer not met the genial, talented editor of the Western Journal of Medicine at New Orleans; did he not believe that the man and his work were worthy of the truest commendation, he would be tempted to use gall instead of honey with his ink; but when he recalls the smiling, frank and honest face of Dr. Parvin, he is satisfied to cross lances only with him, and to hope that these lances will be used hereafter for their mutual protection and support.

University of Louisville,
Medical Department, May 15, 1869.

Whereas, The subject of Medical College fees is attracting much attention at this time; and whereas, members of this Faculty were recently approached in the city of New Orleans by eminent members of the Schools of Nashville and Cincinnati with suggestions for holding a Convention of delegates from the Medical Colleges of the West, for the purpose of arranging a uniform scale of fees, now, therefore,

Resolved, That this Faculty cordially invite the Medical Colleges of Nashville, Memphis, Cincinnati, Columbus, Cleveland, Detroit, Chicago, St. Louis, Indianapolis and Louisville, to send each one delegate to a meeting to be held in the Library of this Department at 12 o'clock, on Thursday, May 27th, 1869.

Resolved, That if any School should not be able to send a delegate, it is desirable to have its views by letter.

J. M. Bodine, M.D., Dean of the Faculty.

This Convention met and adjourned on the 27th of May. The editor has been reliably, though not officially, informed in regard to the result.

Some of the high-fee Schools invited did not send either a reply or a delegate, as recent associate action was assumed to be so well known, as to render information in regard to it unnecessary. The high-fee Schools which did reply gave only an assurance of intended consistency in their recent and prospective record.

Two low-fee Schools only were represented; the Nashville University, Tenn., and the Miami College, Cincinnati, Ohio. Under these painful circumstances, circumstances unexpected to those who called this Convention, but anticipated by all others, no conclusions were reached; no plan adopted, and the consideration of the question was postponed until May, 1870.

The failure of this Convention of *three* must be accepted, as the eloquent warning voice of the American medical profession. It is to be earnestly hoped that those who have desired thus recently to reject the associate request of the delegated organizations recently assembled in New Orleans, will regard the result of this convention as a well merited rebuke from the profession; that they will conform their policy to the expressed desire of their associated brethren, and not be repudiated by those, whose voice and influence they endeavored, through this Convention, to have repudiated.

BOOKS AND JOURNALS RECEIVED.

The Structural Lesions of the Skin: their Pathology and After-treatment. Illustrated. By Howard F. Damon, A.M., M.D. Philadelphia, 1869, J. B. Lippincott & Co. From the publishers.

A Treatise on the Diseases of the Eye. By J. Soelberg Wells, M.D., London. Philadelphia, 1869, Lindsay and Blakiston. From the publishers.

A History of the Medical Department of the University of Pennsylvania. By Jos. Carson, M.D. Philadelphia, 1869, Lindsay & Blakiston. From the publishers.

Pennsylvania Hospital Reports, Vol. II, 1869. Philadelphia, Lindsay & Blakiston. From the publishers.

Annual Announcement of the Medical College of Memphis, Tenn., 1869-70.

A Report on Ovariotomy. Read before the Kentucky State Medical Society at Louisville, 1857. By J. Taylor Bradford, M.D.

Complete Rupture of the Perineum, of Ten Years' Standing, Successfully Operated On. By J. Taylor, Bradford, M.D., of Augusta, Ky.

Trousseau's Eloge Prononce a la Societe de Therapeutique. Par M. Pidoux, Paris, 1869.

Hot Springs, Bath county, Va.: their Medicinal Properties. Analysis of the Waters, with Cases of Cure. S. C. Tardy & Co., proprietors.

Report of the Department of Agriculture for March and April, 1869. Washington, D.C.

Dawson on Fibrous and Fibro-cystic Tumors of the Uterus. Cincinnati, O., 1869.

Champion Reaping and Mowing Machines. Manufactured at Springfield, Ohio.

Anatomie et Physiologie du Poumon Considere comme Organe de Secretion par le Docteur Fort, Paris, 1869.

1 gal 10